

AMERICAN

APRIL • 1958

Cinematographer

THE MAGAZINE OF MOVIE VICTORY PHOTOGRAPHY



In This Issue...

• Anthony Award Winner

• "Wendell" — First in Cinematography

• Testing The World's Finest Color Film

35c

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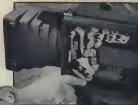
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AMERICAN

Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY
PUBLICATION OF THE AMERICAN SOCIETY OF CINEMATOGRAPHERS

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No. 4

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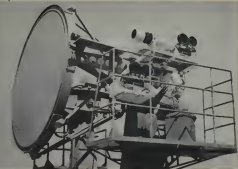
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ON THE COVER

THE CINEMASCOPE camera, under direction of Guyton Krueger, A.S.C., photographs facing of the catenary at Eltville Castle in Denmark for Louis deRochemont's "Windybrook." Novent camera was so close to camera the concave of shot blew the lens films out, and the shot had to be repeated. When no camera movement was necessary, Krueger often bowed at more convenient to mount the 300-lb. Cinemascope camera on sturdy horse instead of a tripod.

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Mitchell Camera installation for radar tracking studies.

HOW MITCHELL CAMERAS SUPPLY VARIED DATA IN ROCKETS AND MISSILES DEVELOPMENT

- Exact Pin Registration
During Film Exposure
- Event Time to 1 Millisecond



Data dial instrumentation by Mitchell camera.

Extensive testing instruments incorporating Mitchell 16mm, 35mm and 70mm cameras provide key data at the U.S. Naval Ordnance Test Station at China Lake, Calif., one of the primary weapon development centers of the Navy's Bureau of Ordnance.

Fifty Mitchell 35mm cameras are used on radars, tracking camera mounts and fixed tripods to record missile and rocket development. Camera motors allow synchronous as well as in-phase operation

of several cameras covering a test... important in film assessing. Eight 16mm Mitchell cameras are used for pictorial coverage of tests.

One metric photographic group shoots as much as 20,000 feet of 35mm film in one day. Other Mitchell cameras record underwater, engineering and aviation tests at this ordnance center.

For information on Mitchell cameras, write describing your requirements.

The Mitchell camera, by virtue of its exact pin registration during film exposure, allows these data to be determined to a reasonably high degree of accuracy through the use of film assessing equipment built to take advantage of this feature.



Yaw—Side-to-side motion of missile



Pitch—Up-and-down motion of missile



Roll—Turning motion of missile



Miss Distance—Gap between missile and target at point of interception



Flight Time—A series of lines on film, timed to accuracy of 1 millisecond



Position Data—Target location with azimuth and elevation readings



Potential Record—Record of all visible actions during test



Separation Data—High speed separation actions for detailed study

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HOLLYWOOD BULLETIN BOARD

News briefs about the A.S.C.,

its members, and important

industry personalities



ALUMNI AWARD Nominees for Achievement in Cinematography for 1957 were honored by the A.S.C. at its monthly dinner March 24th. Presenting engraved commemorative plaques is A.S.C. Percy Bennett Gaffey (2nd from left). Nominees are (from L to R) Stuart Proffitt, Ray Juss, and William Miller. Absent was Milton Krimm.



THE A.S.C. also honored the 1957 "Emmy" Award nominees for best TV film photography. Receiving commemorative plaques from Gaffey is cinematographer William Margulies. Others (from left) are George Diskant, Bob deGraauw, and Herbert Breslin. Not present was William Wellman. Winner of "Emmy" award will be announced April 12.



GOES



—AND RECEIVES

WHEN ARTHUR MILLER, A.S.C., visited Charles Rothen, A.S.C. (right, at left's pedestal statue in Jamaica, N.Y.), last month, he presented to Rothen, in behalf of the A.S.C., the Society's commemorative plaque honoring Rothen for winning a second George Eastman Award this year. Later, on Miller's return to Hollywood, he was honored by the Hollywood cameramen's union with its Billy Bitzer Award for outstanding service to the industry's cinematographers. Presenting award to Miller is screen director John Ford.

Eight cinematographers were honored for having been nominated for "Oscar" and "Emmy" awards at the American Society of Cinematographers' monthly dinner March 24th.

Oscar nominees were Ellsworth Fredricks, Ray Juss, Milton Krimm, and William Miller — all members of the

A.S.C. Not present were Jack Hibbard, who is in Austria on location, and Milton Krimm, A.S.C., who also was on location and could not attend.

Emmy nominees were A.S.C. members Norbert Brodine, Robert deGraauw, George Diskant, Harold Wellman, and William Margulies whose application for

membership in the Society is under consideration.

Leather billboards with the nominees' names inscribed along with text commemorating the event, were presented to each nominee by A.S.C. president Ernest Gaffey.

Arthur Miller, one of the Society's outgoing officers, read the A.S.C.'s annual financial report.

Hoi Mohr, A.S.C., has pulled some rabbits out of a hat, so to speak, shooting day-for-night shots on ocean using infrared film and an undisclosed combination of filters on the camera lens for "Gunrunners," starring Audie Murphy.

While in Mexico shooting location scenes for 20th Century-Fox's "The Bravados," Leon Shamroy, A.S.C., was made an honorary member of the Mexican labor union for motion picture technicians and presented with the organization's gold identification emblem.

Shamroy, incidentally, is being lauded both by the press and industry heads for the new and daring use he made of colored filters when photographing scenes for "South Pacific" in Hawaii. Story of his pioneering photographic accomplishments on this picture is scheduled for the May issue of *American Cinematographer*.

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1 qt. 4.75 — 1 gal. 18.00

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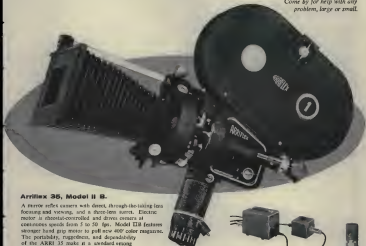
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WHAT'S NEW

... in equipment, accessories, services



Stop-motion Motor

Camco Equipment Co., Inc., New York, N. Y., announces a new 110-V AC synchronous stop-motion motor for the Master 16mm camera, that requires no special tools to attach nor alterations to the camera. Among features are DC braking, forward and reverse operation, and a hand-control switch for manual single-frame operation. Unit includes frame counter and control box shown in illustration. Write manufacturer for prices and data sheet.



Dimmer Console

Mole Richardson Co., 937 No. Seymour Ave., Hollywood 38, Calif., announces a new set-lighting dimmer combination in a portable console which includes two 5000-W, four 2000-W, and four 1000-W resistance-type dimmer plates. Outstanding features are facility to interlock in any combination, gradu-

ated scales for easy setting of controls, colored operating handles identifying each of the three wattage classifications, adjustable cue stops, retractable operator's platform, numbered circuits, plus ease of maintenance and quiet operation.

Total weight of unit is 940 pounds. Finished in the standard M-R neosun baked enamel finish, the unit is 59" high, 22" wide, and 62" in length. Data sheet and price is available by writing the company.



Test Camera Timer

The Corbitt Type 15A intervalometer, a highly-precise timing device for controlling cameras used in airplanes to record test flights of supersonic aircraft, is announced by Corbitt Enterprises, North Hollywood, Calif. Pulse-rate intervals can be varied from 1/2 second to 60 seconds in half-second increments. A remote switch affords manual operation of cameras for either single frame or standard continuous operation. Unit is available for non-military use. Literature is available.

Arriflex Lease Plan

King Photo Corp., 257 4th Ave., New York 10, N. Y., announces that arrangements have been made with National Equipment Rental, Ltd., Floral Park, N. Y., whereby Arriflex 16mm and 35mm Mirror-reflex motion picture cameras may be leased. New "pay-as-you-use" plan is available through all Arriflex franchised dealers. Leases may be arranged for up to three years for as little as \$75 to \$100 per month, roughly about 9% of the equipment purchase price per year. At expiration of lease, equipment may be purchased.

(Continued on Page 289)



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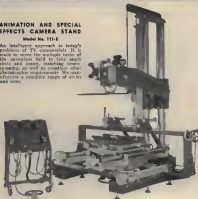
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WHAT'S NEW

(Continued from Page 202)

for 10% of original cost, according to Kling Photo Corp.



Motion Analysis Camera

Fairchild Camera & Instrument Corp., 5 Aerial Way, Syosset, N. Y., announces its Model HS-501 motion analysis camera, a high-speed film camera capable of taking pictures at speeds up to 6,000 fps. It can also be operated at sub-normal speeds as low as 10 fps. It can be stopped and re-started at any speed at any point in the film run by dynamic braking of the drive motor and an electro-magnetic brake on the feed spindles.

Weight of camera is 24 lbs. Over all size is 9"x13½"x16 13/16".

Field Power Generator

Forney Generators, Inc., subsidiary of Forney Industries, Ft. Morgan, Colo., is marketing a unique power generator which is mounted under the hood of an automobile and driven off the fan-belt pulley. Originally designed to supply power for driving power tools at camp or building sites, it has been tested as a power source for photographic lights for small production companies and industrial film producers working on remote locations. Unit may be had with mounting kit to adapt it to most modern cars. Voltage supplied is 110-120 AC 2000 watts capacity.

Gavost Moves to Chicago

The Gavost Co. of America, Inc., has moved its Chicago district office to new and improved quarters at 6601 No. Lincoln Ave., Lincolnwood, Ill. Joseph Berensky continues as General Manager of the district office.

Norwood Meters

Don Norwood, Heli-Tech president, announces that the U. S. Photo Supply Co., Wash., D.C., has been appointed sales distributors for the Norwood Super Director exposure meter.

The film that
"completes the team" of
the world's fastest
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picture emulsions...

NEW 16mm

Super Anscochrome Tungsten Film

EXPOSURE INDEX 100

Super Anscochrome—daylight type—has set new standards for color photography. Now Super Anscochrome is made available in a Tungsten Type emulsion—with a Tungsten exposure index of 100—for 16mm motion picture work. Judging from the wide acclaim received by the daylight type Super Anscochrome, it promises to open-up new worlds in cinematography under existing and artificial light conditions.

Super Anscochrome's Tungsten speed does not mean a loss in color quality. As in all Super Anscochrome emulsions, greater color curve conformity means closer correspondence with subject color—from full intensities to pastels in highlights or shadow areas.

Processing may be carried out in regular Anscochrome processing chemicals. Forced development will give increases in speed to E.I. 160 with just slight loss in quality, and up to 200 if required.

Super Anscochrome Tungsten is at least three times faster than any Tungsten type color film you have ever used, and ten times faster than traditional color film. Try it on your next assignment. Ansco, Binghamton, New York. A Division of General Anstec and Film Corporation.

AnSCO

Super Anscochrome Tungsten 16mm Film

ON LAND...

Superman, Engineering Station Picture Group, water background, all work Boeing water picture soon as they photograph scene of Boeing

two pilots inspecting the Boeing Model 707 Commercial Jet Transport for its first flight. Two Arriflex 16s and one Arriflex 25 are used

UNDER WATER...

Boeing Station Picture Unit Commercial prepares to submerge with his underwater lighting into hydraulic tank containing entire fuselage of Boeing KC-135 Jet Tanker. Photo in circle shows 16mm Arriflex camera mounted on platform of underwater tank, specially designed and constructed at Boeing, to photograph the submerged fuselage

AND IN THE AIR... ARRIFLEX SERVES BOEING

700 pilot airplane proposed aircraft to Boeing commercial before take-off

INDUSTRY NEWS

News briefs of
industry activities,
products and progress . . .

SMPE members and guests attending the Society's third semi-annual Convention in Los Angeles, April 21-25, will hear four interesting and informative papers delivered concerning the latest in cinematographic techniques. The session will be held at MGM Studios in Culver City.

The problem of getting a greater depth of field in motion picture photography, as demanded by wider screens and larger camera apertures, is subject of paper by Sidney Zipser, Technicolor Corp. A camera aperture pinning on its vertical center and accurately calibrated will be proposed as one means of achieving depth in a diagonal plane, permitting more dramatic staging.

A conformal printing system for Todd-AO projection will be described by Brian O'Brien, Wadsworth E. Pohl, Technicolor Corp., will cover the background of large area negative photography at Technicolor, together with techniques for producing anamorphosed and de-anamorphosed type prints from such negatives.

Large area production photographic systems and techniques used at Metro-Goldwyn-Mayer Studios will be discussed and demonstrated by Douglas Shearer, the studio's Director of Technical Research.

New shadowing effects the eye's perception of surface color was reported last month by Kodak Scientists Sidney M. Newhall, Robert W. Burnham, and Ralph M. Evans. Their research is related to what is known as "color constancy" by which perception of color is unaffected by the individual's awareness of surrounding light and shadow.

Ten test "surface colors" were used in the experiments. Differences in hue, saturation, and lightness appeared when a shadow was cast on the samples. When just a single sample was shadowed, results differed when the background was shadowed as well. This was because the eye adapted to the over-all shadow, it was explained.

Artists have known of this effect for centuries; the researchers pointed out, but Kodak scientists are now able to measure it more quantitatively for use in color photography. The experiments show that hue and saturation are changed very little by shadowing, while lightness, though affected most of all, is diminished only about one-third of the predicted amount, the report concluded.

A new 70mm filming and projection system has been undergoing development the past two years by C. V. Whitney Pictures, Hollywood. Company reportedly contemplates undertaking its first production in new system in very near future. Tentatively titled "Wonderland, U.S.A.," initial production will be similar to *Circus in the Forest*.

Film commercial business in Hollywood has slumped so sharply that both the unions and industry heads are making a pitch for an increased share of government and industry "support" and educational film production requiring sensitive and animation techniques.

Commenting on the trend, *The Hollywood Reporter* (March 26, 1958) said: "Part of the slump is attributed to shift in trends of TV commercials, with optical photographic effects increasingly supplanting animated commercials."

The government-industry business, which animators and film producers hope to turn their way, is conservatively estimated at \$25,000,000 annually.

As of April 1st, MGM, low studio on the production scene, in 1957, will have played 11 feature films before the cameras compared to only 5 up to same time last year.

More than 2,000,000 feet of Eastman color negative was consumed by Cinemascope cameras during the production of Louis de Rochemont's "Windjammer," which opened in Hollywood April 9th, according to records of W. J. Geisner, Inc., distributor of Eastman professional motion picture films. The record footage was required because the Cinemascope cameras utilize three separate negatives for each take. Credited with the photography of "Windjammer" is Joseph Brann, A.S.C., and Gayne Rochester, A.S.C. Latier's story on the photography appears elsewhere in this issue.

3-D is possible on TV, according to Dimensional Pictures Corp., Hollywood, which has developed a compatible third-dimension process for TV films and trade-named it Depthograph. System uses a single negative and special prismatic lenses, and projection of image is said to require no modification of either existing telecasting or receiving equipment. Non-polarized spectacles must be worn by viewers wishing to see a 3-D telecast, according to the company.

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Photographic Assignments

Who, where and what the industry's cameramen were shooting last month

*Asterisks indicate commercials and television film productions

AUDIO ARTISTS

• CARL CUTLER, ASC, "Solomon Trail"
(Carnegie-Hall & Calnet with George Man-
gomery and Diane Brewster, R. G. Spring-
steen, director)

• JOHN MARTIN, ASC, "Legion of the Dama-
id" with Bill Williams and Don Richard.
Thor Brundt, director

AMERICAN NATIONAL

• FERRIS GORJALAC, ASC, "Target" (Zi-
TV) with Adolph Menjou, Jack Henley,
director. "Masthead" (Pilot, Zi-TV)
Eddie Davis, director

• CARY FLETCHER, ASC, "Target" (Zi-TV)
with Adolph Menjou

• GLEN MACWILLIAMS, ASC, "Highway Pat-
rol" (Zi-TV) with Roscoe Crowder
Various directors. "But Mustang" (Pilot,
Zi-TV). Walter Dunlap, director

• EDGAR NEEDHAM, Olympia Beer Commer-
cial (Zi-TV). Jack Henley, director

CALIFORNIA STUDIOS

• HAL McALPIN, Pacific Gas & Electric Com-
mercial (Crown-Keepe Prods.). Paul Lan-
dram, director

• JOHN McGUIRE, Jr., Pacific Gas & Elec-
tric Commercial (Crown-Keepe Prods.). Paul Lan-
dram, director

• FLEET SOURDIS, "Hans Gerd Will Travel"
(Filmmaster Prods.). Various directors

• GILBERT WARRINGTON, ASC, "Western
Union" (Pilot, Filmmaster Prods.) with Dick
Anderson. Franklin Adams, director

CASCADE PICTURES

• EDWIN DUNN, ASC, Beach Commercial"
George Sells, director

COLUMBIA

• GARY ANDERSON, ASC, "Sherlock Temple's
Storybook" (Screen Gems) with Shirley
Temple. Various directors. "Playhouse 90"
(Screen Gems). David Rich, director

• HENRY FORELICK, ASC, "Clay Jones"
(Screen Gems) with Alan Hale, Jr., George
Ruge, director. "Flag Over Texas" (Main
highly Prods.) with Kerwin Matthews and
John Adams. Paul Wendler, director

• RICHARD GORVY, ASC, "Playhouse 90"
(Screen Gems). David Rich, director. "Ed
Wynn Story" (Pilot; Screen Gems). Wm.
Russell, director

• JAMES WONG HOWE, ASC, "Bell, Book and
Candle" (Phoenix Prods.) with James Ste-
wart, Kim Novak and Jack Lemmon. Richard
Quinn, director

• GUYNE REICHER, ASC, "Bell, Book, and
Candle" (Zed Unit)

• FRED JACKMAN, "Adventures of Rex Ten-
Ten" (Screen Gems) with Lee Aulley and
James Brown. Various directors

• CHARLES LAWREN, ASC, "The Last Har-
rah" with Spencer Tracy and Jeffrey Hunter
John Ford, director

• GILBERT WARRINGTON, ASC, "The Virgin-
ian" (Screen Gems). David Rich, director

• LUDWIG WURTH, ASC, "Jefferson Davis"
(Screen Gems) with Jeff Richards. Various
directors

WALT DISNEY

• GORDON AYLL, ASC, "Zorro" with Guy
Williams. Various directors

• WILSON ROCK, ASC, "Dorothy O'Hall and
the Little People" (Walt Disney Prods. for
Buena Vista) with Albert Sharpe and Janet
Marino. Robert Stevenson, director

FILMCAST STUDIOS

• VINCE MILLER, ASC, "You Bet Your
Life" with Gaboria Hara. Robert Dunn,
director

FOX WESTERN AVE

• LARRY ARON, ASC, "Shen to Marty a Mid-
winter" (Darryl F. Zanuck, director. "The Perry
Mason Show" with Raymond Burr. Wil-
liam Russell, director

• FRANK REISMAN, ASC, "The Perry Mason
Show" with Raymond Burr. Various direc-
tors

• CHARLES VAN ENDE, ASC, "Men Without
a Gun" with Rex Brown, Charlton Hest-
on, director. "I Love my Dog" (Pilot). David Rich,
director

GENERAL SERVICE

• RAY FOSTER, ASC, R.G. Dun Cigar Com-
mercial" (Van Pelt Prods.). Philip Smith,
director

• HENRY SHARP, ASC, "Bolt Journey"
(Adventure Prods.) with Jack Douglas. Leon
Bambas, director

• WALTER STROCK, ASC, Ford Commercial"
(Filmmaster Hollywood Prods.) Thelma Glad-
son, director

• JAMES VAN TATER, ASC, "Baron & Allen
Show" (McCadden Prods.) with Great
Allen and George Bates. Rod Amstutz,
director

• HARRY WILK, ASC, "Bob Cummings
Show" (Lawrence Prods.) with Bob Cum-
mings and Rosemary De Camp. Bob Cum-
mings, director

• PHILIP TAPSCOTT, ASC, "The People's
Choice" (Norden Prods.) with Jackie
Cooper and Pat Bowden. Jack Cooper,
director

(Continued on Page 174)



SAMI ALAMEDDINE
Executive Producer
11 years in CFI
11 years in film industry



SAM LAMONIE
Associate Producer
1 year with CFI
11 years in film industry



RONALD J. DANIELS
Executive Producer
10 years with CFI
10 years in film industry



TED ARNTZ
Associate Producer
24 years with CFI
24 years in film industry



SAMI ALAMEDDINE
Executive Producer
1 year with CFI
8 years in film industry



SAMI ALAMEDDINE
Executive Producer
1 year with CFI
24 years in film industry



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Executive Producer
11 years with CFI
11 years in film industry



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Executive Producer
11 years with CFI
11 years in film industry



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Executive Producer
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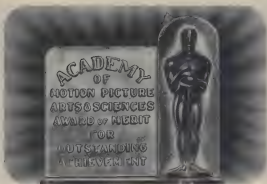


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PHOTOGRAPHIC ASSIGNMENTS

(Continued from Page 207)

GOLDWYN STUDIOS

• **NOBERT BRIGGS, ASC**, "The Lorette Young Show" (4) (Lorette Young) with Lorette Young, Richard Maury, director

INDEPENDENT

• **WILLIAM CLAYTON**, "East West" (Low budget), "Baker's Bakers" (Low budget) and "Kiss Kiss" (Low budget). Director: Thomas D. Lyon

• **J. BORG CARTER, ASC**, "Merrill" (Merrill Lynch, Pierce, Fenner & Smith) with John McVie and James Franco. Director: Jerry Cooper

• **FLOYD CARRER, ASC**, "The Red Gang" (The Red Gang) with John Ashley and Jack Lee. Low budget, director

• **PERRY FENNINGTON**, "Daddy O" (Imperial Productions) with Dick Cavato and Sandra Goleman. Director

• **FREDERICK GAVELIN, ASC**, "Kathleen" (Warner Bros.) with Dan Kelly and Miss Jane Helen. Director: Sherman A. Rose

• **MURRAY GERTSMAN, ASC**, "Little Men" (Hugo Boss Productions) with Carl Morris and Dick Kallman. Hugo Boss, producer-director

• **ERNEST HALLER, ASC**, "Men of the West" (CinemaScope & Eastman color) with John Ford and Gary Cooper. Director: John Ford

• **RAY LAMONT, ASC**, "The Defiant Ones" (Stanley Kramer Productions) with Tony Curtis and Gary Williams. Stanley Kramer, producer-director

• **LEONARD LINDEN, ASC**, "The Barbara Gurney Story" (Columbia, Inc.) with Susan Ray and Robert Wad. Director

• **JACK MURPHY**, "The Colonial" (American International Pictures) with Sally Foster and Roger Price. Bert I. Gordon, director

• **KENNETH PERRY, ASC**, "Hong Kong Confidential" (Vogue Pictures) with Gene Barry and Dorothy Taylor. Edgar J. Cohen, director. "The Curse of the Fantastic Man" (Vogue Pictures) with Richard Anderson and Elaine Edwards. Edgar J. Cohen, director

REYNOLDS STUDIOS

• **WALTER STUBBS, ASC**, "This is the Life" (Ferry Film) William Claxton, director

KLING STUDIOS

• **EDNA CARRER, ASC**, "Copy Show" (Laclede Productions) with Ted Andrews. Various directors

UNLITTELED PLAYHOUSE

• **ALAN STUBBS, ASC**, "People Are Funny" with Art Linkletter. By Alfred Hitchcock

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• **BRYCE BARR**, "Sky King" Various directors, "Death Valley Days" Smart McGowan, director

(Continued on Page 211)

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TECHNICAL QUESTIONS & ANSWERS

Conducted by Walter Strange, A.S.C.



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Q QUESTIONS relating to cinematography or other phases of film production are invited from readers and will be answered by letter by Walter Strange or by other qualified members of the American Society of Cinematographers. Questions and answers considered of general interest will appear in this column.—Ed

Q Please explain method for determining correct exposure when using filters with films of different emulsion speeds.—M. L., Toronto, Canada.

Answer: Since a filter absorbs some light, its use in photography involves an increase in exposure corresponding to the proportion of the effective light absorbed. The amount that exposure must be increased, when a filter is used, is determined by the multiplying factor established for the filter—which is commonly known as the *filter factor*. This factor is governed by both the photographic material and the light source to be used.

A red filter, for instance, may require an enormous increase in exposure where the film has little or no sensitivity to red. Red-negative film, on the other hand, may require only a 3- or 4-stop exposure increase. The same considerations also apply when different light sources are used. Therefore, it is meaningless to refer to filters as "two-times" or "four-times" filters, etc.

Filter factors specified by the film manufacturer for its respective negative and positive stocks can be relied upon for results. Using the given filter factor, you multiply the normal exposure time (for photography without a filter) by the filter factor figure and set your exposure accordingly.

In practice, where quality of illumination may be different than that on which the filter factor has been computed, a different factor will apply, of course. In order to determine the correct factor in such a case, it is best to shoot a test, utilizing a neutral test or gray scale used for the exposure.

First, expose a few frames of the subject using no filter, then put on the selected filter and make a series of short exposures, progressively changing less

opening over the series to give you a complete analysis. Then, after the film is processed, study such exposures, either visually or by means of densitometer, to determine the exposure desired. *Faughn Skinner, A.S.C., Associate*

Q How can I produce the effect of cut-out smoke, or fog to open and/or close scenes or titles?—R. S., Chicago, Illinois.

Answer: Simplest method is to use white smoke and illuminate it with a lamp covered with a gelatine of the desired color. The effect can be shot separately against a black velvet and then superimposed optically over the scene or title.—*Ray Meyer, A.S.C.*

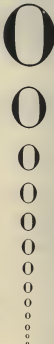
Q On the sound tracks we obtain using a converted Arcafox Cine-Voice camera and Kodak Tri-X negative, we are bothered by a slight humming or background noise. We have remedied this problem to some extent by the use of a pre-amplifier, but have not eliminated it entirely.—F. K., Calgary, Alberta, Canada.

Answer: Your noise problem may be caused by one of two things: by hum induced by the amplifier or by high film noise. Most of the microphones supplied with tape and 16mm film recording equipment today are relatively low in sensitivity and therefore require considerable amount of gain from the pre-amplifier. This pushes the pre-amplifier input down into the noise level.

In most professional studio work, microphones are used having a fairly high level output, as for example the RCA 10661 or the American D-34.

It is presumed that the camera mentioned has some system of noise reduction in the audio setup, and if this is properly set for the negative-positive process, it would naturally be many for direct-negative reproduction. If it is possible to do so, reverse the noise reduction action and adjust for direct-positive.—*Loren L. Ryder, A.S.C., Associate*

Q How is the "Tara, Tara" effect, both vertical and horizontal, also the book turn produced?—J. P. C., London, England.





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Answer: Both the vertical and horizontal "burn over" effects are generally produced on an optical printer by mounting a single "minus lens" element between the printer camera lens and the film to be copied. By turning this lens on its vertical axis 90° while printing, an illusion of turning the scene over is created.

The effect of turning a page in a book can be accomplished by optically printing through a laterally sliding strip of glass which has previously been heated and curved in a manner to give an illusion that the image is being picked up by one corner and turned over, so a page would be turned. —Linwood Dunn, A.S.C.

Q I have observed that amateur professional cameramen use an amber viewing glass when lining up scenes in B&W photography, while others use a blue one. What is the purpose of each? Which is the better? —A. G. Denner, Colo.

Answer: One amber viewing glass is popular use comes as a unit of Mitchell Camera equipment and is used by cameramen to determine the relative values of different colors within a scene.

This glass has been largely supplanted by the Ilford Pan Viewing Glass, which is blue in color and has the ability to transmit all the relative colors the scene as the amber glass but with the additional convenience of being able to use it in combination with different color filters to show the relative values in a scene as will be rendered by that filter when used with the camera lens. It is especially useful to check the strength of yellow, orange and red filters. This is something that cannot be done with the amber viewing glass.

Success with a viewing glass is largely a question of getting accustomed to using and evaluating scenes with it—learning its peculiarities and its limitations. —Karl Stuss, A.S.C.

Q What is the difference between "depth of focus" and "depth of field"? —A. E. M., Tampa, Florida.

Answer: Depth of Focus refers to the image space inside the camera. Depth of field refers to the object space outside the camera. The degree of depth is dictated by focal length of lens, the diaphragm opening, or both. Confusion between the two terms arises because people frequently and erroneously say "depth of focus" when they mean "depth of field." —Stanley Horley, A.S.C.



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**CINE EQUIPMENT
PHOTO SUPPLIES**

'Windjammer'—First In Cinemiracle

How some of the unusual sequences were filmed at sea with the huge tri-lensed Cinemiracle camera for this super wide-screen production.

By GAYNE RESCHER, A.S.C.



CINEMATOGRAPHER Gayne Rescher in portable camera setup adjusts PA light for a closeup of shipyard for "Windjammer." Looking on is grip Kenneth Forbes. Cinemiracle camera records scenes in superwide-screen format as three separate negatives moving in sync.

IT ALL STARTED LAST May as we made our way under sail from Miami to New York. Our "windjammer," the *Christina Radick* was a beautiful ship—one of the few full-rigged vessels still under sail—and while the Louis de Rochemont-Cinemiracle production "Windjammer," had been shooting for five months, its story had been told thus far only with exterior shots.

Cinemiracle was still a new process and there was a great deal of uncertainty about shooting interiors with the huge, 3-unit camera. With Cinemiracle's tremendous curved screen and 110° angle of view, thinking was naturally slanted toward the spectacular. The cramped quarters inside the *Radick* (she is 220 feet long and carries a crew of ninety) are anything but spectacular, however, everyone agreed that we should include a few interiors in the production, perhaps make them later in a studio.



HIGH HULL ship-enclosed Cinemiracle camera was hoisted from deck at submarine. Camera crew stands on deck as sub prepares to dive.



USING A lighting problem. To get enough light in shoot in limited quarters, cameramen Roscher used large mirrors in right background to reflect and spread light 120°



ONE problem of shooting in close quarters was how to use scene after setting up camera. Here Roscher finds spot below camera. For this combination exterior-interior scene filmed MacArthur suspended reflected daylight

We were approaching New York when director de Rochemont and I decided to see what we could do in the way of shooting interiors aboard ship. To illuminate interiors, all I had were a few shiplights and a 30-amp generator brought along to charge camera batteries; so naturally our possibilities seemed rather limited. The smallest compartment on the ship is the radio room—actually little more than a closet—and we practically had to take the ship apart to get our big *Cinefracture* camera into it. The camera blocked the entrance and the only way to get in was through a small side window. We toiled in the lighting and hoisted our actor—in this case the ship's second mate—through the window. It was necessary to ask him to make the adjustments of the light himself, as there was no space for anyone else in this tiny room. The camera itself was so tightly wedged in the doorway we could not rack Coblentz over to see what we were getting. The closest object is the lens, as I remember, was something less than one-foot, and the actor was about

two and one-half feet away.

Right after this shot was made we moved out to the slightly larger chart-house. There were greater photographic possibilities here; I could use a reflector through the gelled window for my key.

(Note: Author Roscher mentions two de Rochemonts in this story: producer Louis de Rochemont, and Louis de Rochemont, III, son of the producer who served as director of the picture.—ED.)

The success of these two shots changed our thinking completely on the subject of interiors. Even on the pass 10 x 100 foot screen the scenes retained a feeling of intimacy and closeness. Producer de Rochemont—always a stickler for authenticity—immediately used the studio idea and mapped out an ambitious schedule of interiors to be shot on the actual ship. Furthermore, he wanted them shot while the ship was actually underway, so the effect of motion of a ship

(Continued on Page 242)



OPERATOR Tom Courney sets lens aperture for curved underwater exposure. Air-bottle visible behind camera was used to pressure blimp. Courney and technicians dived along in blimp during searching, simulated camera buoyancy.



AT SURFACING dived, camera and blimp float free. Later was then hoisted aboard barge from which it was suspended by cable for underwater shots, which are among the highlights of this initial *Cinefracture* production.



ACHIEVEMENT AWARDS FOR 1957

BEST CINEMATOGRAPHY

Jack Hildyard
The Bridge On The River Kwai

BEST MOTION PICTURE

The Bridge On The River Kwai
Harrison Pictures-Columbia

BEST ACTOR

Alec Guinness
The Bridge On The River Kwai

BEST ACTRESS

Jeanne Woodhead
Three Faces Of Red

BEST DIRECTION

David Lean
The Bridge On The River Kwai

BEST SCREENPLAY

Robert Benoit
The Bridge On The River Kwai

BEST MUSIC SCORING

The Bridge On The River Kwai
Harrison Pictures-Columbia

BEST SOUND

Soyuzdetfilm
Warner Brothers

Academy Award Winners

Only one "Oscar" awarded this year for photography. British cameraman Jack Hildyard wins it for "Bridge On The River Kwai," also voted Best Picture of the Year.

By ARTHUR E. GAVIN

QUIET, UNASSUMING Jack Hildyard, who breved the rigors of the tropics to record in unforgettable color photography "The Bridge On The River Kwai," was rewarded for his achievement with the industry's highest honor, the Academy of Motion Picture Arts and Sciences' gold "Oscar," at the Academy's 30th Annual Awards presentation ceremonies March 26th. The British director of photography, until this year never before a contender in the "Oscar" race, was on location in Austria and could not be present in



JACK HILDYARD

Hollywood to accept the award. His long-time friend, Harry Stradling, A.S.C., accepted the trophy for him.

"The Bridge On The River Kwai," a Harrison Pictures production which Sam Spiegel made for Columbia Pictures' release, also won six other awards: Best Picture, Best Actor, Best Direction, Best Screenplay, Best Film Editing, and Best Music Scoring. Thanks to Hildyard's imaginative photography, the picture is one of the most visually beautiful to reach the screen in more than a decade. But it is the way that Hildyard used his camera to give visual impact to a mood, heightened dramatic

moments with just the right camera angle or lighting, and underscored with rare and beautiful compositions each and every exterior shot on location, that gives distinction to the photography of "Kwai," notwithstanding all the natural pictorial advantages of the picture's tropical locations in Ceylon.

Hildyard was not content simply to photograph the story's action against the abundant natural beauty which he found everywhere; he enhanced this beauty and gave it new dimension through skillful camera handling and lighting. Where the mood or the primal impact of a scene could be enriched by shooting it at a certain time of day when sunlight was most advantageous, he persuaded director Lean to delay or advance a shooting schedule in order to achieve these results. Throughout the picture Hildyard's imaginative approach, and his marked flair for adding dramatic impact to a scene through photography are clearly evident.

Only one award was given by the Academy for Achievement in Photography this year. Earlier, the Academy had decided to trim the number of award categories by combining some color and black-and-white achievements in a single classification. Thus Art Direction, Costume Design, Music Scoring as well as Cinematography achievement nominees embraced both color and black-and-white productions for the first time since the advent of color motion pictures.

Nominated this year for the Cinematography award, in addition to "The Bridge On The River Kwai," were "Soyuzdetfilm," photographed by Elsworth Fredericks, A.S.C.; "Fanny Face," photographed by Ray June, A.S.C.; "An Affair To Remember," photographed by Milton Kresser, A.S.C.; and "Peyton Place," photographed by William Mellor, A.S.C. All five produc-

tions were shot on Eastman Color negative. Each of the cameramen named above will receive a Nomination Certificate from the Academy—considered by many a coveted consolation award.

Two other members of the American Society of Cinematographers figured indirectly in the awards presentation. William F. Kelley, head of the Motion Picture Research Council, accepted the Class I Scientific and Technical Award presented to the Council for "the design and development of a high-efficiency projection screen for drive-in theatres." Benjamin Berg, distributor of the Sam Berling Pan Cinor variable lenses for Zeiss cameras, accepted the Class II Scientific and Technical Award presented to The Société d'Optique et de Mécanique de Haute Précision—French makers of the Pan Cinor lens—for "the development of a high-speed variable photographic lens." Both Kelley and Berg are Associate Members of the A.S.C.

Other major awards presented by the Academy:

Best Motion Picture: "The Bridge on the River Kwai."

Best Actor: Alec Guinness, "The Bridge on the River Kwai."

Best Actress: Joanne Woodward, "Three Faces of Eve" (20th Century-Fox.)

Best Supporting Actor: "Red" Buttons, "Sayonara" (Warner Bros.)

Best Supporting Actress: Miyoshi Umeki, "Sayonara."

Best Director: David Lean, "The Bridge on the River Kwai."

Best Screenplay: Pierre Boulle, "The Bridge on the River Kwai."

Best Original Story and Screenplay: George Wells, "Designing Woman" (MGM.)

Best Art Direction: Ted Haworth, "Sayonara."

Best Song: "All the Way," from "The Joker Is Wild."

Best Music Scoring: Malcolm Arnold, "The Bridge on the River Kwai."

Best Sound: "Sayonara."

Best Film Editing: Peter Taylor, "The Bridge on the River Kwai."

Best Costume Design: Orry Kelly, "Les Girls" (MGM.)

Best Special Effects (Audible): "The Enemy Below" (20th Century-Fox.)

Best Documentary Feature: "Albert Schweitzer" (Hell and Anderson Prodn.)

Best Live Action Short Subject: "The Wetback Hoax" (Larry Lamborgh, Producer.)

Best Cartoon Short: "Birds Anonymous," (Warner Bros.)

Best Foreign-language Film: "The Nights of Cabiria" (Dino de Laurentiis Prodn., Italy.)

(Continued on Page 246)



CAMERAMAN JACK WILDYARD (white shirt) leads cast and crew to a new camera setup on a river in Ceylon, principal location for exterior for "The Bridge on the River Kwai." For the brilliant

camera work on this production, the Academy of Motion Picture Arts and Sciences in Hollywood has honored Wildyard with its gold "Oscar" statuette for Best Achievement in Photography for 1957.



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EACH TIME camera is re-mounted at a shooting site, it must first be centered on the subject or scene to take in exactly the same picture scene as in preceding take. This is done by sighting through telescope which is part of camera register-mount.



WHEN CENTERING and alignment of camera is accomplished, leveling screw is locked, also the leveling base. Sighting accuracy in alignment each time results in takes that appear made all at same time.

Dissolve-Lapse—New Technique In Interval Photography

**A description of the camera alignment equipment
necessary to new technique of interval cinema-
photography described last month by author.**

By LEE CHANEY

IN THE INITIAL article on this subject, which appeared here last month, I differentiated between the techniques of time-lapse and dissolve-lapse and explained that in the latter a progressive action is photographed at normal camera speed, instead of a frame at a time, in brief takes at measured intervals from the same camera position and usually at the same time of day. The takes are lap dissolved (either as the shots are made or later at the time of printing) so the complete record unfolds on the screen in a series of dissolves—with each take showing, in normal action, a measure of progress, as in the construction of a building, etc.

As I pointed out last month, dissolve-

lapse is not a substitute for time-lapse. Yet the idea expressed to the audience can be much the same: to show a passage of time or to show a progressive action, and even in scientific studies, dissolve-lapse can be used equally well as time-lapse. One advantage of dissolve-lapse is the fact the subject motion is always normal. In time-lapse, of course, motion is speeded up, and in shots where people are involved, this fast motion sometimes makes the scene ridiculous when it was not so intended.

For dissolve-lapse photography it is rarely practical to leave the camera on its mount in the field, for obvious reasons. After a brief take is made, the camera is removed, then when the next

shot is to be made—a day or a week later—it is brought to the site and re-mounted; it then becomes necessary to carefully line the camera up with the scene or subject exactly as it was when the preceding take was made — i.e., pointed in precisely the same direction and exactly covering the same field. To accomplish this requires (1) a fixed vertical mount at the site for the camera (such as a metal column or pipe sunk in concrete) and, (2) a precision register-mount mounted thereon that permits locking the camera in a position corresponding to that for the preceding take.

In the dissolve-lapse projects undertaken by this writer, photography has been accomplished with the aid of the simple register-mount pictured on this page in the beginning, several elaborate and complex gadgets were considered only to be abandoned in favor of this one, which was designed and constructed with the able assistance of Don Iwerks, a camera technician at Walt Disney Studios.

In the photos above, the two steps necessary to lining up the camera are shown: (1) centering the camera by means of the telescope, which is part of the register-mount, and (2) locking the vertical adjustment screw, once proper angle of camera has been set.

The camera is attached to top of the register-mount by means of a $\frac{3}{8}$ " x $\frac{1}{2}$ " Allen screw, which replaces the conventional tripod screw. The Case Special

camera was used because it is easily registered, thanks to its rectangular shape.

In photo below is an exploded view of the component parts that make up the complete register-mount. The top plate is hinged to the bottom plate at the front by a machine bolt having adjustment for tension. The bottom plate is mounted on a stuffer, circular plate with a tension screw that permits mount to be swivelled as required, then locked securely in place.

In the bottom of the circular plate are two round pins and two threaded screw holes that serve to register the whole assembly on a 1½-inch pipe flange. To insure a perfect fit, the pipe flange should be machined off flat, then four holes drilled to match those in the circular plate. Two of these holes serves the pins in the circular plate. Through the other two, Allen screws pass up to the threads in the circular plate. Once the Allen screws are tightened, the whole assembly is securely registered.

There is one assembly we have yet to mention. This is the group of components seen between the two horizontal plates in the exploded view. This is the telescopic sight register-mount. Its function will be explained later. As may be seen, a cylindrical section with a flanged top fits underneath the top horizontal plate. This is held in place by four countersunk Allen screws. A hole is drilled through the section and a long Allen screw inserted which reaches through to a threaded hole in the center of a small circular plate. In this case

(Continued on Page 248)



EXPLODED view of components that make up the complete register-mount for dissimulo-logic photography.



NORBERT BRODINE
ASC
"Miss Ashley's Demeanor"
Loretta Young Show



ROBERT deGRASSE
ASC
Dorothy Thomas Show



GEORGE DISKANT
ASC
"Voice in the Fog"
Alcoa-Goodyear Hour



WILLIAM MARGULIES

"Outlaw"
Have Gun, Will Travel



HAROLD WELLMAN
ASC
"Hans The Magnificent"
Bell Telephone Science Series

'EMMY' AWARD NOMINEES

NOW THAT THE 1957 "Oscar" awards have become history (see story elsewhere in this issue), Hollywood's attention now turns to the upcoming "Emmy" awards of the Academy of Television Arts and Sciences. Winners of the TV Academy's 1957 Gold "Emmys" are to be announced the evening of April 15th in presentation ceremonies to be held jointly at the famed Coconut Grove in Los Angeles and the 7th Regiment Armory in New York City.

Of the many "Emmys" which will be handed out this year, one has very special significance for the cameramen of Hollywood—a great many of whom now direct the photography of films for television. That is the award for Best Cinematography For Television.

This year, members of the TV Academy have nominated five cinematographers as contenders for this single "Emmy" award to be given for best photography of a film produced and televised during 1957. They are:

Norbert Brodine, A.S.C., who photographed "Miss Ashley's Demeanor" for the Loretta Young Show series.

Robert deGrasse, A.S.C., for the photography of the Dorothy Thomas Show series.

George E. Diskant, A.S.C., for his lighting of "Voice in the Fog" for the Alcoa-Goodyear Hour.

(Continued on Page 248)



FIG. 1—One of the major contributions to reduction of blackening and blistering was introduction several years ago of tubular bulbs for 2000- and 1000-watt lamps, such as the 2000-watt Q-66 (shown right) left of it is the 1000-watt Q-64 lamp.



FIG. 2—A 10,000-watt studio lamp shown with some of the many "model" experimental lamps tested in the development program of an improved lamp design.

Design Improvements In High-wattage Filament Lamps Respond To Studio Needs

By GEORGE HOWARD

Lamp Lamp Application Engineering, General Electric Company

THE PICTURE-PRODUCTION requirements of the motion picture industry have always posed interesting and peculiar problems for designers and manufacturers of tungsten filament lamps. The introduction of wide-screen processes and the use of color film have created more difficult problems, and they have called for higher lighting levels than ever before. Lamp makers, therefore, have been asked to produce large quantities of controllable light in compact and quiet packages. The response has been the development of a line of high-wattage studio lamps. In fact, at General Electric, more than 65 per cent of all the incandescent lamps of 2000 watts or more are lamps designed for studio lighting or related service. This represents an increased use of high-wattage lamps which produces a corresponding effort aimed at improving quality and performance. Most recently, lab-entire work has been directed toward reducing bulb blackening. The objective is to improve the lamp beam lumen maintenance and to reduce the tendency of bulbs to blister in service.

Lamps designed for spotlight service have high-wattage, concentrated filaments in relatively small bulbs. In addition, color film requirements demand high filament temperatures to produce light of satisfactory color characteristics. Both of these design parameters tend to contribute to poorer lamp performance. First, because the rate of evaporation of a tungsten filament increases greatly as its temperature rises,

High-wattage filaments, of course, have a larger filament surface from which more tungsten can evaporate. Evaporated tungsten, deposited on the bulb wall by the convection stream of the inert gas in the lamp, becomes a more serious problem in the higher wattage lamps. Bulb blistering and depreciation in beam candlepower are caused primarily by this black deposit. The relatively small bulb sizes required for studio lamps also contribute to poor beam maintenance.

When the bulb is turned in the base down position, the gas stream rises to the top of the bulb and deposits the blackening in a region where, because of the design of the filament, relatively little filament radiation impinges. But as the spotlight and bulb are tilted, the gas stream, still rising vertically, deposits tungsten in an area of greater filament irradiation. The spotlight reflector reduces this energy through the blackened zone. Thus, when a spotlight is aimed down at about 45 degrees, the gas stream in the lamp carries the blackening to an area of the bulb where it obstructs light that would ordinarily contribute to the spotlight beam (Fig. 4). As a result, beam lumens (light in the beam) are decreased and the bulb glass temperature is increased.

This increase in glass temperature due to blackening can, and frequently does, cause the start of a vicious cycle. It is characteristic that many glasses give off small amounts of moisture when heated to high temperatures. When this

moisture is released inside the bulb, a "water cycle" is started, causing a more rapid rate of blackening than would occur due to normal filament evaporation. This increased blackening absorbs more radiation, which in turn causes localized bulb temperatures to increase. Soon a point is reached when part of the glass bulb becomes sufficiently plastic and the internal gas pressure blows a "blister" on the bulb.

During manufacture, spotlight lamp bulbs are heated to the highest practicable temperature to remove much of the moisture from the glass. However, after blackening begins in confining spotlight housings, bulb temperatures may rise high enough to initiate the so-called "water cycle." This situation is at its worst in the 10,000-watt lamp. Blistering is often so severe that the glass bulb may touch the spotlight reflector, causing a crack that ends lamp life. In the 5000-watt G-64-bulb and 2000-watt G-60 bulb lamps, the problems are similar, but not so severe.

One of the major contributions to the reduction of blackening and blistering problems was the introduction several years ago of tubular bulbs for 2000- and 5000-watt lamps. When the spotlight is aimed downward 45 degrees the extended contour of the tubular bulb is almost directly above the filament. This bulb shape effectively "pre-blanks" the bulb, locating the hot spot further from the filament. Blackening in this region interferes less with light that forms the beam. As a result, bulb temperatures are lower, blistering is greatly reduced, and bulb blackening has less effect on the spotlight beam.

Unfortunately, this development is not applicable to 10,000-watt lamps. A tubular bulb of preferred contour will not fit in the vast majority of existing 10,000-watt spotlights. Shortening the tubular bulb to fit these units does not improve lamp performance in proportion to the increased lamp cost.

Investigations have been made to determine whether forced ventilation could sufficiently lower bulb temperatures to reduce blistering of 10,000-watt lamps. At the outset, results from this type of test are usually quite encouraging, since cooling air aimed at the hot spot drops initial bulb temperatures significantly. However, as bulbs blacken, the high rate of absorption of radiation overrules the advantages apparent at the early stages of this technique. Blowers of high capacity (and annoyingly high noise levels) can not remove heat fast enough to prevent blistering.

Attempts have also been made to reduce blackening and blistering by internal construction changes in the lamp. For many years lamp designers have used collector grids or

screens to improve lumen maintenance of the products. Thomas Edison was granted three patents during the period between 1881 and 1883 on the use of various forms of collector grids to control bulb blackening. Conventional grids have been tried in various studio lamps, including the 10,000-watt size, with no success. Conventional grid materials had to be located too far from the filament, because of the temperatures involved, to control blackening in the most critical burning positions. Drastic redesign of the 10,000-watt lamp was therefore undertaken.

It was felt that by locating the grid close enough to the filament, results would outweigh any light-losses caused by the screen shading a portion of the pickup angle of the mirror. A screen located close to the filament can be much smaller to intercept the gas stream. Further, its higher temperature improves its effectiveness. In order to withstand the temperatures involved, a special screen of woven tungsten wire was developed.

Early in the development program, practical limitations came into play. In order to obtain significant results, a relatively large number of sample designs had to be built. The resultant demand for power supplies and testing space and equipment meant that test facilities had to be greatly expanded so that the program had to be stretched out over a long period, with tests of only a few lamps at a time. Test facilities were increased considerably, but a technique believed to be new in the study of high-wattage lamps proved to be the greatest time-saver. Scale models of the large lamps were built to test more variations more quickly than could be done using full-sized lamps. The model used for the 10,000-watt lamp was a 1000-watt G-30 lamp with a medium bipost base. The models gave a 1:1 wattage reduction, with about the same bulb loading. Many models were made with a variety of screen configurations. (See Fig. 2.)

One of the early groups of tests compared the results of burning on a-c and d-c circuits. Results confirmed the opinion that differences were insignificant. Another series of tests sought to determine if it was best to electrically isolate the screen, or to attach it to the positive or negative side of the supply (on d-c circuits). Again there was no significant difference; this was reconfirmed in later tests with full-sized lamps.

Every series of tests with the model lamps was consistent in one respect. The better-located collector grid always produced an improvement of 8 to 10 per cent in lamp lumen maintenance over lamps without grids.

The relatively complex development and testing program culminated in a new lamp design—the 10K/G36. A special

(Continued on Page 238)



FIG. 3—Two models of the 10,000-watt studio lamp. One on right has collector grid (wire) designed to intercept gas stream and thus reduce blackening and blistering.

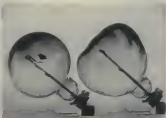


FIG. 4—Lamp with collector grid (wire) at end of normal filament life—about 73 hours. Lamp at right without collector grid is badly blistered after only 48 hours use.

Camerman Freddy Young Reflects on
the photographic problems and procedures
related to filming

'INDISCREET'

By DEREK HILL

"STANLEY DOZEN probably takes more interest in lighting and color than the average director," Freddy Young told me after finishing fourteen weeks shooting on "Indiscreet," a sophisticated comedy starring Ingrid Bergman and Cary Grant.

"In Dozen's musical film successes, he established a fair for using the mobile camera which follows the players," continued Young, "and he likes to keep all the actors involved in the shot within the frame. When I shot 'Invitation to a Dance,' Gene Kelly had Carol Haney crouching the camera crane operators so they would keep the camera a couple of feet ahead of the dancers. In this way, we were able to start to track back in time to keep the dancers' feet in frame. I got the impression that Dozen is used

to working in a similar way.

"But 'Indiscreet,' I think I'm right in saying, is the first film of Dozen's in which no one dances. The emphasis is always on dialogue—much of it very amusing—which means a lot of cutting to reaction shots rather than panning and tracking and I think this has tended to make Dozen break away from some of the moving camera techniques he's employed in the past.

"Similarly, although there are quite a few such shots in 'Indiscreet,' he couldn't use the crane as much as in his past work because about two-thirds of the film was shot on a composite set, often within four walls. The set represented Ingrid Bergman's luxury London apartment and included two bedrooms, a kitchen, a semi-circular draw-



UNUSUAL love scenes between Cary Grant and Ingrid Bergman, who talk to each other from their respective beds in Paris and London, were filmed simultaneously with two cameras on two separate



ing room complete with a balcony, a hallway outside the apartment, and an elevator. As it was we sometimes had to strike a wall, but most of the sets required that we use a velocity, simply because a crane would have taken up too much room."

The apartment, Young explained, had to be depicted at various times of day. His lighting, therefore, had to convey everything from a bright Spring morning to a romantic evening. "Dozen worked very closely with art director Don Ashton on the decor," he commented, "and gave particular attention to furnishings and fabrics with respect to their effect on the photography."

The picture was shot in Eclair Color and for wide screen, using Mitchell cameras. "Dozen considered all the

REDFY YOUNG (far left) was personally with director Stanley Dozen (foreground) shortly before a scene for "Indiscreet." Young's assistant, meanwhile, ready camera for the upcoming take. Production was filmed entirely in England.



sets built close together so that Grant and Miss Bergman could hear each other and react accordingly. Stanley Donen directs double-takes from ladder-top. Another shot of two cameras are at right.



CARY GRANT professes love via long distance telephone . . .



INGRID Bergman listens with rapture while lying about other story.

shapes and sizes before he chose wide screens," said Young, "and I'm sure he was right not to go straight for Cinema-Scope just because it's so fashionable. 'Indiscreet' isn't the sort of film that would gain much from being in Cinema-Scope."

A few day and night location sequences were shot in London, with the usual attendant difficulties of crowds and police permits. One sequence shows Cary Grant and Ingrid Bergman leaving a theatre, forgetting the Rolls which waits for them at the curb, and wandering through the streets with a puzzled chauffeur trailing them at a respectful distance.

"One of the last scenes we shot followed them as they walked past Cleopatra's Needle on the Thames Embankment," Young told me. "We were lucky with the weather, though it was rather cold. But several short nights we had a bit of panic because there was a particularly high tide, and the water started lapping over the steps where we had the lamps and cable. We just finished the shot before it reached us."

"Indiscreet" features an unusual love scene between stars Cary Grant and Ingrid Bergman, who talk to each other from their respective beds in Paris and London. Director Stanley Donen conceived the idea of filming the action simultaneously with two cameras so that Grant and Miss Bergman could hear each other's voices and react accordingly. The camera setup for making the simultaneous shots is illustrated in the photo at top of this page. Here may be seen the lighting equipment that was employed for set illumination, and both Cary Grant and Miss Bergman are visible in their respective beds in the background. Two microphones were employed to pick up the dialogue—one for each player—and because speech was kept to a low level, each microphone picked up only the speech of the respective person for which it was intended. In editing, the lengthy shots were broken up and appropriately intercut, resulting in one of the most dramatically effective sequences in the picture.

"Indiscreet" marks Freddy Young's

fortieth year as films. He started in the Gaumont laboratories, and later became an assistant cameraman. His first credit as a cinematographer was on "Victory," in 1927. His record includes such notable productions as "Goodbye, Mr. Chips," "39th Parallel"—two of his personal favorites—"Cassey and Cleopatra" (in which Jack Hildyard was his camera operator), "The Window Boy," "Rhewena Junction," "Island in the Sun" and "I Accuse!"

I asked if any of the directors with whom he had worked had seemed to him to be the cameraman's ideal. "John Ford struck me as having something special," he said. "I worked with him on 'Mogambo' and again on 'Midwestern Day.' He's got a knack of saying exactly what he wants in a very few words, leaving it to you to finalize the set-up. Even more important, he achieves a lot just by suggestion. For instance, he'll say, 'When the fellow opens the door, it might be as if he let him be in silhouette for a moment, so that we're not sure immediately who

(Continued on Page 248)



STILL PHOTO of UFO made by Shideki Takada, Fujawa, Japan, on August 28, 1957, at 11:28 a.m. "Object was viewed for two minutes, made 90° turn, then doubled its velocity and disappeared."



THREE UFOs photographed by Edith Kasser at Helikowen, Austria on August 2, 1954, at about 1 p.m. Estimated altitude of objects was about 7,500 feet, were moving about 120 miles per hour.

Motion Pictures Of "U F O's"

UFO's, otherwise known as unidentified flying objects," have been successfully photographed with motion picture cameras.

By MAX B. MILLER and NORMAN S. KOSSUTH

FROM THE MAJOR INCEPTION of the unidentified flying objects (UFO) craze in 1947, certain pieces of evidence have been lacking. Official and private researchers alike concede that good and sufficiently detailed motion pictures of UFO's are, unfortunately, not available. And they are greatly needed to help solve the mystery.

Lately hundreds of still pictures have been purportedly taken of UFO's over the years, but authorities state that these can be simulated and it is almost impossible to prove otherwise.

But some extremely interesting motion pictures of these anomalous objects do exist. For example, Father Gregory Miller shot 25 feet of B&W 16mm film of a searchlight beam striking a UFO over Narwood, Ohio, in 1949. Although enlargements of some individual

frames have been released, the 16mm print has yet to be made public.

In April and May, 1950, UFO's were photographed by cinethedolines (telescope movie cameras for remote tracking) at the White Sands Proving Ground in New Mexico. The objects were never identified and the films never released to the public.

Nicholas Marinas, owner of the Great Falls, Mont., baseball team, and his secretary were checking wind direction at the ball park at 11:30 a.m. on August 19, 1950, when they noticed two shiny objects in the southwest. Marinas became excited, ran 60 feet from the grandstand to the parking lot to obtain his 16mm camera from his car, and began filming the UFO's with a three-inch telephoto lens at 16 frames per second, using Daylight Kodachrome.

The objects momentarily hovered in mid-air, and then — with a swooshing sound—traveled to the southwest keeping approximately the same distance between them until they were lost to sight.

After processing, the UFO portion of the film roll comprised 315 frames. This footage was shown to service clubs and other audiences in Montana. Finally, it was submitted to the Air Force's Technical Intelligence at Dayton, Ohio, for analysis.

The first 30-odd frames reportedly showed large images of the objects, with something of a head at the periphery by which the UFO's could be seen to rotate in space. On the remaining film, the objects came out only as bright white dots with no recognizable structure, color or shape (even under a microscope). After careful analysis, the



LEAFY BODACHROMI frame enlargement from film made by George Adcock of Valley Center, Calif. Two double-lobes are clearly visible and there are good reference points in the picture.

Air Force, determined that the UFO's were not birds, balloons, meteors nor aircraft. They were classified as "unknowns."

Meanwhile, in June, 1950, in Louisville, Ky., Al Hiversbaugh claimed he shot 50 feet of 16mm S&W film of a large UFO, which at first remained stationary but later disappeared into the west. Hiversbaugh is a staff photographer on the Louisville Times.

On July 2, 1952, Warrant Officer Delbert C. Newhouse, Chief Photographer (Aviation), USN, his wife and their two children were driving from Washington, D. C. to Portland, Oregon. At 11:10 a.m., they were seven miles north of Tremonton, Utah, when Mrs. Newhouse called her husband's attention to a cluster of bright shining objects in the east.

Newhouse stopped the car. Getting out he observed 12 to 14 "pan-nut-like colored objects shaped like two spheres, one inverted on top of the other." They were now directly overhead and milling about, and were estimated to have approximated the angular diameter of the moon (about one-half degree).

Newhouse took his Bell & Howell Auto-Meter-Meter camera from the trunk of his car, loaded it with Durlight Kodachrome, and focused the 4-inch lens at infinity. Shooting at 16 fps, lens aperture was decreased from f/8 to f/16 at a point approximately one-third of

his total footage. (This proved later to be a mistake.)

Unfortunately, there were no points of reference (such as clouds or distant mountains) on any of the footage. (Marjane included a water tower and other structures on some of the frames of his film.)

After processing, the film was turned over to the Navy, which in turn gave it to ATIC for analysis. This examination indicated the objects were not aircraft (which would have been resolved if near enough to the camera to effect such large images), balloons, birds, and other such possible explanations. According to Edward J. Ruppelt, head of the Project Blue Book (official UFO investigative body) at that time, the Navy's Photo Interpretation Center at Annapolis not only confirmed ATIC's analysis, but stated the mysterious craft appeared to be intelligently controlled.

The Newhouse film comprises about 1,200 frames. Most of these frames exhibit white round or elliptical dots. The

dots themselves show no structure, though a microscope showed the camera to be properly focused, Albert M. Chop, Chief of the Press Section of the Air Material Command at the time of the ATIC analysis, says that densitometer examination revealed that images of the objects had "burned right down to the celluloid backing of the color film."

The Newhouse and Marjane films were included in the Greene-Rouse Production "Unidentified Flying Objects," released through United Artists in 1955.

A hovering object near Wright-Patterson AFB, Ohio, was filmed by a jet interceptor's gun camera at 11 a.m. on August 30, 1952. The UFO was initially picked up on radar. Despite the fact that the Air Force officially "explained" it as a weather balloon the film was never released to news media or the public.

Three Scandinavian fishermen claimed to 15,000 feet on June 30, 1954. The planes carried 50 scientific observers whose object was to observe and photograph a total eclipse of the sun near Liljell, Denmark.

At 2:17 p.m. two shiny objects were noticed near the northern horizon. Noted cinematographer Johnny Byrnsell, who was aboard, got out his camera and started shooting. Both objects were clearly visible on the processed 16mm film.

One of the witnesses, E. Graham of the Swedish Travel Bureau, described the mysterious phenomenon as follows: "Objects were clearly revolving and showed

(Continued on Page 258)



ANY GOOD 16mm camera fitted with a telephoto lens can produce suitable motion picture research material of UFOs.

Filming On Unfamiliar Locations

When on a tour or vocation, don't start shooting right away. Spend the first hours or days in a new locale looking over places of interest and locating the most rewarding vantage points from which to shoot.

By HAROLD BENSON

THERE ARE FEW worse experiences for the risk photographer shooting a travelogue or holiday film than discovering that the superb scenery which has taken four-fifths of his film stock during the first week doesn't begin to compare with the sights he's seeing during the second week of his visit. My own most agonizing moment occurred at the end of a day's excursion by car through some of the most photographically rewarding country of Corsica.

We returned in a tiny plane belonging to a private airline, and by virtue of the Rollei I was carrying, I was ushered into a seat next to the pilot. All the way back he dipped low over the mountains, following the coast, so I might get shots more advantageously. The daylight was perfect, the whole spectacle breathtaking. But I didn't dare tell anyone that I had only ten feet of film left in the camera, having already used all I'd brought with me for the day!

The moral is obvious enough: Don't rush things when you don't know the surroundings. Tell yourself there's always a better view, a more arresting angle, or a more typical character just around the next corner, and you'll be surprised how often you're right.

The best principle of all is not to take the camera out of its case for at least the first few days following your arrival. If you're only going to stay a fortnight, don't start shooting until the second week. If you're there a month, leave it for a fortnight before you begin.

Don't imagine that leaving the camera at the hotel means wasting your time. Keep a notebook with you all the time, don't look too hard for your subjects, and relax like a hotelmaker without a care or a camera in the world.

Make no mistake—once you're taking it easy, things will start to happen. You don't pass many days without a few

scenes and a glimpse or two, after all. For the moment all you need do is go—then down. Keep a record of every incident which amuses you, every scene which fascinates you, every local habit which intrigues you.

If your family or friends are appearing in the film, watch to see how they get on with the inhabitants. The unlikely friendship of a London fashion model (the central character in my latest production) and a squat Corsican taxi driver who looked like an ex-henrywright gave me the car for a whole series of sequences.

The driver's mock presentation of a bouquet of weeds, for example, was en-

tirely his own idea, but it was a natural comedy moment for the film. Efforts to talk to each other, neither knowing a word of the other's language, provided equally obvious visual material. And the driver's habit of pointing out the most interesting places we passed was a gift to continuity.

Until you've caught the habit, you'll find it tricky to snap out of the mood of the moment to make your notes. So tell your "cast," and anyone who's with you, to watch out in a similar way. You'll find out by the end of the first week you will have enough material in note form for half a dozen films.

Don't be afraid to push things a little further in your script. While I was at Corsica, we hired a pedalo—a sort of two-man boat-cum-bicycle—for the afternoon. As we cruised about beneath the cinder walls, I got so interested in the view that I didn't pay much attention to steering, and the pedalo got locked between a couple of hoking boats. In clam, being about to push us free I didn't fall in—but the hero of the film did in the sequence the incident inspired.

This wait-and-see method of working is equally practical if your cast are strangers to you. The first time I met the fashion model was at the airport, en route for Nice. Unused to film work, she was inclined to be stiff and awkward before the camera. Only towards the end of our brief stay in Corsica did I begin to appreciate her training and work had given her a gift for an

(Continued on Page 246)



"CRISING" THE LOCATION before starting to shoot long has been standard procedure for Ted Phillips, now photographer for actress Bette Davis—shown here showing scenes of hotel interiors on the beach at Malindi, Kenya, for a Wallace Travelogue in 1949.



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FIG. 1.—Exposed at $f/1.9$. Right source fluorescent lamps in ceiling. Note extreme depth



FIG. 2.—Shot made with 1-inch lens at $f/1.9$. Rayons light from walls adds exposure here

FIG. 3.—Shot made with 3-inch lens at $f/1.6$. In original, color is good margin-to-margin



AUTHOR CUSHMAN. Shown above color tests with Cine Kodachrome, using 1-inch $f/1.9$ and 3-inch $f/1.6$ lenses. Frame enlargements from test roll are reproduced on these pages.

SHOOTING MOTION PICTURES in color with available light is now possible, thanks to Ansco's newly introduced Super Amecochrome Color Film, Tungsten Type. This sensational, super-speed color film is available now in 16mm and opens up new possibilities in color photography for cinematographers in all fields of motion picture making.

The new film, which is ten times faster than traditional color film, has an official exposure index of 100 ASA with normal processing. The extreme sensitivity of this film to Tungsten light makes photography by candle light a reality. The ordinary kitchen match produces enough illumination to permit satisfactory picture making. Although the film is balanced for 3200K illumination, very acceptable pictorial results are now possible with any type of visible illumination. A lens $f/1.9$ or faster is capable of producing well-exposed motion pictures where illumination amounts to less than two foot-candles.

In testing a hundred-foot roll of the new Super Amecochrome, Tungsten Type film, the writer based exposures on the manufacturer's established film speed of 100 ASA. The results were quite satisfactory, considering the subject matter—a local club meeting. Frame enlargements from the film are reproduced on these pages and are intended to show the great depth and detail possible with this new high-speed color film.

The clubhouse in which the film was exposed is about 30 by 70 feet in size, and illuminated by banks of fluorescent lamps hang from the ceiling. Distance between lamps and floor is about

Testing The World's Fastest Color Film

New Tungsten Type Super Anscochrome, now available in 16mm, makes "existing light" photography in color possible for first time.

By GEORGE W. CUSHMAN

10 feet. The fluorescents gave a flat, diffused illumination, and appeared to light the room evenly. However, as the filmed results indicate, there was considerable fluctuation in light intensity in different parts of the room, with bounce light from the walls—never considered in my original calculations—accounting for much of the illumination disparity. Before starting to shoot, I took but a single meter reading, which indicated an exposure of $1/1.9$.

Some of the exposures were made at $1/1.9$ with the 1-inch lens. When I switched to the 2-inch lens, I opened up to $1/1.6$ just to see what the difference would be, if any. Suspecting that fluorescent lighting was not the desirable 3200K, in color temperature, I took a color temperature reading and found it to be just a shade over 3600K. Thus, I thought, would produce a slightly bluish tone to my pictures, but under the existing conditions there wasn't anything I could do about it. The accompanying frame enlargements cannot indicate the color results obtained, but the overall results were quite natural and the bluish tone I had expected, due to the increase of 400° in the Kelvin temperature, failed to develop. The entire roll of film, incidentally, was exposed at 16 frames per second.

It was noted that shots made of people at the side or end of the room are more fully exposed than similar shots made in the middle of the room. This is clearly visible in Fig. 1, which was shot (with the 1-inch lens set at $1/1.9$) from the stage looking out over the audience, as the club members were arriving. Those in the middle of the room are rather

(Continued on Page 267)



FIG. 1—Shot shows marked difference in exposures. Man on left is deeply shadowed.



FIG. 2—Despite lack of "55 light," exposure is generally good.



FIG. 3—Picture filmed close to walls shows benefits of bounce light.

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FILAMENT LAMPS

(Continued from Page 229)

when tungsten wire screen is fastened to supports and electrically isolated from the filament. In operation, the screen is located between the filament and the mirror, so that it is above the filament when the spotlight is aimed down (Fig. 3). The total lamp lumens from the new design are slightly less, but the *useful* factor, however in the spotlight beam remains almost exactly the same. The grid does not alter the beam because it is about 80 per cent transparent, and it occludes only a small area of the spotlight mirror.

The most significant improvements in this new lamp are its reduced blistering and its improved beam lumen maintenance characteristics. A typical collector grid lamp burned to the end of filament life at 45 degrees from base down in a spotlight has barely noticeable blistering (See Fig. 4); this suggests that the *effective* life of the lamp in spotlight service will go from the 16 to 50-hour limit now imposed by blistering to the full design life of the filament—approximately 75 hours. Comparing total useful light—that is, beam-lumen-hours—from lamps with and without collector grids gives a measure of the added value provided by the grid. Assuming that the non-grid lamp is useful for about 30 hours of spotlight service, if the collector grid lamp is burned to failure—at about 75 hours—it will deliver about 68 per cent more beam-lumen-hours than the non grid lamp will in 50 hours of spotlight service.

The remarkable improvements that the collector grids made in the performance of 30,000-watt lamps immediately suggested extension of the design to other sizes. Life and beam-lumen tests similar to those described above were made with 5000-watt lamps in both the G-64 and T-64 bulbs. As expected, the collector grid reduced blistering and blistering in the G-64 bulb, in the T-64, the improvement was barely apparent. Beam-depreciation characteristics of the 5000-watt spotlights make it apparent that the collector grid gives only a minor

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improvement over the standard lamp with the T-64 bulb. This improvement is not at all in proportion to the increased costs that inclusion of the grid would impose. Another conclusion that can be drawn is that users of G-64 lamps can gain about 10 per cent in light over lamp life with an equivalent lamp cost increase by switching to T-64 lamps. This means that users will be able to get more light, on the average, with fewer spotlights by employing T-64 lamps.

Tests indicate that, at the present time, conditions do not warrant the extension of the collector grid design to the 5000- and 2000-watt studio lamps.

"INDISCREET"

(Continued from Page 231)

it is, and then let him walk into a pool of light. This sort of thing is very refreshing. Most directors insist that everyone's face be fully lit all the time."

During the last war Young was a Captain in the Army Film Production Group. He went in as a cameraman, but after a few months became a director. Eventually he had his own mobile unit, and directed dozens of instructional training films all over Britain.

He still has ambitions to become a feature director. "Sometimes an experienced cameraman virtually has to carry a new director through his first few films," he said, "and it makes you wonder why you shouldn't be doing the job yourself. Actually I've had a number of offers, but they've always come when I've been tied to a contract."

Young would also welcome the chance to explore the potentialities of color further than the actual production schedule allows. "Companies are always skeptical

about anything new," he remarked. "Invitation to the Dance" was sufficiently off beat to give more scope than usual, but we were very untidy with the timing of that film. By the time the cartoon sequence was finished wide screen systems were in general use, and the dancer's feet were invariably cut off the bottom of the frame in two of the three reels in most theaters."

Though he agrees that monochrome work can be very interesting, Young prefers to work in color. "There's something lacking in black-and-white after color work," he said. "It always seems so cold."

Young is President of the British Society of Cinematographers, a body now in its ninth year. This is Young's second term of office as President. "We're about sixty members," he told me, "and about fifty of these are cameramen who've shot good quality features. The others are not cameramen, but are closely associated through laboratory or similar work. The Society has lectures and meetings throughout the year—we aim at one a month—and helps to bring us together and keep us in touch with developments."

Britain, he added, can boast a nucleus of very good cameramen these days. I asked whether he noticed many differences in production methods in London and Hollywood. "On the floor," he said, "you can't tell whether you're in Britain or America. But Hollywood has the advantage of complete centralization of everything to do with films."

"For example, you can roam through Mexican saddle stores, English saddle stores, Western saddle stores—according to the production you're working on. In London if you wanted a Mexican saddle you'd probably finish up making it yourself! And the same thing goes for the machine shops for camera accessories. Luckily the position is improving in London, as a result of the increase in television production. But it's only a gradual building up, and can't yet compare with Hollywood's facilities."

Young had just returned from location in Wales for "The Inn of the Rh Happiness," a 20th Century-Fox production to be directed by Mark Robson, with whom he has already worked on "The Little Hut." He was about to leave London for Hong Kong, for an anticipated six weeks location work. "I'll be with Ingrid Bergman again," he told me, "which really pleases me. She's a wonderful person to work with. And I'll be working once more with Robert Donat. The last time we worked together was on "Goodbye, Mr. Chips." And to make things even more pleasant, although my work has taken me nearly all over the world, this will be my first Far East trip."

PHO

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"WINDJAMMER"—FIRST IN CINEMIRACLE

(Continued from Page 221)

under sail, even in a windowless interior, could not be duplicated at dockside.

It turned out to be a formidable job. When you think of the wide scope of our three-lensed camera the difficulties are apparent. With a range of field fifty-five degrees vertically and one hundred and forty-six degrees horizontally, any light not behind the camera is in the field. The sea and a half-foot ceiling of the ship's compartments further complicated the problem. If we could have put a few false beams across these ceilings, our task would have been much easier, but the ceilings already were so low it would have looked ridiculous. We worked out a number of interesting solutions, however, and in the end became quite expert in hiding lights. If it was not possible to improve a hiding place for lights we would build one. And the ship's crew was sometimes startled to find beams, cobwebs, etc., where they had not been before.

In some of our later shooting—in the submarine and in the CIC room of the destroyer—all our lights were hidden in our field. In many cases there was hardly room for our operator behind the camera. Here the small Masterlites

proved very useful. They are relatively easy to conceal and when "boosted" with a power converter have amazing "punch."

We sometimes had trouble in small quarters in that these lights did not have enough flood, but we overcame this in a rather novel manner. I had a panel of plexiglas made into a mirror and put in a rack to bend it to a convex form. By bouncing a light off its curved surface, we could spread a light beam as much as we wished and still use a single light source. We also had many occasions to use flat or only slightly curved mirrors for this purpose, as we often found it easier to conceal a mirror than a light. We would then "hit" the mirror with a light set up at a more convenient position—"billed show" we called them.

We sailed with the Radick all the way back to Oslo—a thirty-one day crossing as it turned out. We had a heavy schedule of exterior and interior films, but the north Atlantic weather had other ideas. It was storm and fog all the way across. As a result director de Roche-mont transferred most of our scheduled scenes to locations below deck. Physically, I am sure this shooting was prob-

ably the most demanding I had ever done. In the rough North Atlantic in a pitching, rolling 220 foot ship, every light had to be nailed or clamped down. Just to stay on our feet was an effort, and while I have never been seasick I came as close this time as I care to. I had plenty of company—there has never been a picture crew with as little interest in food.

Shooting in the fjords of Norway, following our arrival in Oslo, was a happy and rewarding experience. We had no script, only a piece of music: the Geig Piano-Concerto in A Minor. Our only instructions were to interpret the concerto on film, using Grieg's own inspiration: the beautiful and rugged Norwegian countryside. Director de Roche-mont had a small battery-operated phonograph and we played the concerto until we were hearing it in our sleep. The great scenic panoramas of Norway were an ideal backdrop for Grieg's music; but we felt we could go even further in interpreting it. So we moved in with the camera for big closeups of such details as a small brook, waterfalls tumbling over mossy-green rocks, dew-drops on delicate Alpine flowers, etc.

Without benefit of a chain of lenses (Cinemathe cameras use but one lens—a specially designed 28mm lens made by Eastman Kodak Co.), we moved our camera unbelievably close to these subjects. Once, when checking focus before

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starting to shoot, we observed that a cluster of small ferns were so close to the "A" camera lens they would be photographed twice—once directly and again through the "A" camera mirror!

Photographing the underwater sequence for "Windjammer" was really more of a problem of logistics than photography. Our pressurized underwater camera blimp, nicknamed SCUMPA (self-contained underwater motion picture apparatus) with cameras and weights enough to sink it, weighed about a ton. Photographically, the problems here were pretty straightforward; but the problems of getting this monster to a point where we could shoot were rather complex. Fortunately, we had the help and facilities of the Navy, without which filming this sequence would have been impossible.

Typical of our problems was the one we faced of transferring the underwater blimp from the deck of a submarine, to a barge which was to support the camera for the next shot. The barge was equipped with a winch, but could not come close enough to the sub in the rough open sea. The transfer problem was solved rather neatly by unlatching the blimp, now buoyed, and letting the sub drive, allowing it to float free. A small boat then towed the blimp (and most of the camera crew) to the barge.

A large share of the credit for the un-

derwater sequence must go to operator Tom Canny and technician Bob Gaffney, who followed the camera everywhere. These two, I am sure, hold the record for submarine dives made clinging to the outside of a sub.

Back in New York we were faced with the chore of shooting a sequence in which our Norwegian sailors see the big city. I say "chore" because all of us involved in the technical and of the production were New Yorkers and had photographed the usual points of interest time and time again. Besides, we all had previously worked on Cinemas and were thoroughly tired of the navelogue technique, which thus far we had tried as much as possible to avoid. And so it was, when director de Rochemont came up with the idea of doing an abstract impressionistic sequence, we all jumped at the chance.

The idea originated in a short Mousie film made sometime ago by the famous still photographer "G. G. G." We called in Wrege, who came bearing his bag of tricks, and set to work finding out what trick of his we could adapt to our process. Wrege's equipment turned out to be an amazing assortment of hybrid kaleidoscopes, mirrors, prisms, and miscellaneous hardware.

We mounted a single chamber of our big camera on top of a stallion-wagon, and with Wrege doing as technical ad-

visor, set out to photograph the most wonderful nonsense I have ever seen on film of New York. I'm sure there will be varied opinions on this sequence, but it is one of my favorites, probably because it was so enjoyable to photograph. It was understood that at this time Cinemas had no facilities for opticals, and every photographic trick had to be done in the camera. None of the techniques we used were really new: kaleidoscopes, spectrographic prisms, double exposures, gradings, variable shots, prisms in pairs to give an anamorphic effect, etc. We used every technique we could think of, and sometimes used several at the same time. For example: in filming the night sequence I exposed the lights of Broadway through a rotating kaleidoscope, keeping the center masked off in the aperture. Then, later in the studio, we ran the film through again, photographing on the previously masked off area of the film, the sailors and their girls dancing. On the screen the sailors and girls appear to be dancing through the lights. Again—nothing new, but with optical departments so expert today, cameramen seldom have reason to do tricks in the camera.

Cinemas is not the easiest process in which to work, but I believe the fresh opportunities it offers the director and

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be shot in Cinemascope—limited only by
certain techniques peculiar to the process.
It's going to be interesting to see
where Cinemascope goes from here.

FILMING OF UNFAMILIAR LOCATIONS

(Continued from Page 232)

exaggerated kind of mime which
though it would have looked artificial in
the majority of performances could easily
be adapted to suit the circumstances.

Once, for instance, I spotted her trying
on a variety of postures on holiday
hats and striking a series of poses before
a shop window. This gave me the chance
for a lighthearted sequence with plenty
of amusing closeups—though in the film
she showed the hats off to a boy friend.
Similarly when she took a daydream ride
in a mountain village, she immediately
seized a rodeo champion. Again I had
the chance of an agreeable close-shot
which salvaged what might have been a
routine sequence.

Besides giving you chance to spot
useful situations and characteristics, this
apparently haphazard approach means
that you also get time enough to find
the best atmospheric closeups. By filming
the screen with the bare feet of rock 'n'
rolling Cretans youngsters dancing on
a cave terrace I was able to indicate the
local adoption of tourist habits in the
nearest time.

Equally economical are the sort of
two-in-one shots which offer a conventional
foreground subject set off by a
background which gives the whole
image an unexpected significance—but
such shots again take time to find. A
fisherman holding up a wriggling lobster
is one thing; but a fisherman holding
up a lobster against a background of
checkered camera-chewing tourists
is another.

You can often suggest interiors with-
out any lighting equipment and miracu-
lously convey the immediate air
roundings by leaving the interior fore-
ground in silhouette and exposing for
the exterior seen through window or
doorway. And this is one of the few tech-
niques when by letting someone walk
from the light into the shadow you'll
enhance the effect. A boy seen through
the window of a waterfront cafe, with a
few silhouetted heads in the foreground
and a boat or two beyond, can sum up
the atmosphere of a location in a single
shot. I tried a similar shot in Vincennes,
framing the head of a friend enjoying a
meal against the plate's oval window,
and exposing for the clouds beyond;
and the result was very rewarding.

Make a note of the best camera posi-
tions for such pictorial effects—but

don't forget that too many soon become
dull, especially if they are done simply
for effect rather than to say something
that a straightforward shot wouldn't
convey. In any case, four such shots are
plenty for a half-hour film.

Try, too, to avoid the clichés. Don't
fall back on a sunset to end the film.
Look for something with a suggestion of
foretell about it—a water skier disap-
pearing into the distance, the grass of an
airport blown by the plane that roars
away. On the other hand, don't dismiss
the cliché with a difference, because if
the difference is arresting enough the
shot is no longer a cliché.

I used a sunset shot, not to conclude
the film, but to end the sequence showing
the first day's experience. But I
used it only because from my hotel win-
dow the sunset included a lighthouse, its
wide beam sweeping round in the dark.

When you want to cover excursions
from your main location, try and work
with the same method. Go out, once with-
out a camera if you can manage it, or
you'll be back on the old routine of
shooting everything and using up your
film supply before you've reached the
best part of the trip. And remember: the
most entertaining motion pictures, ama-
teur as well as professional, are planned.

"EMMY" NOMINEES

(Continued from Page 227)

Filmmaker Margulies, for the photog-
raphy of "Outlaw," a film in the Have
Gun, Will Travel series.

Ronald E. Feldman, A.S.C., for his
filming of "Heros The Magnificent" for
the Bell Telephone Service Series.

As in the case of the film industry's
"Oscar" awards for cinematography, it
is a specific television film, usually one
in a series, that is nominated for the
"Emmy" award, with the director of
photography of the winning film receiving
the award statuette.

Lester Sher, A.S.C., has the distinction
of winning the first "Emmy" award
for TV film photography. The trophy
was presented him in March,
1955, for the photography of "I Creep
the Stairs," a film in the "Medecine"
series produced and released during 1954.
William Sickner, A.S.C., won an

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"Emmy" award in 1956 for the photography of "Black Friday," a film also in the "Medic" series and selected during 1955. Last year, the "Emmy" award for photography went to Norbert Brodine, A.S.C. for the photography of "The Pearl," a film in the Loretta Young TV show series.

Brodine, incidentally holds the record for consistency as an "Emmy" nominee, having been named every year since the awards were begun in 1955. George Dickert, who was a nominee in 1956 and again in 1957. Other ASC nominees who have been nominated more than once in the past by the TV Academy are Ed Colman, who films the "Dragnet" series, and Bob Pittack. Colman was a nominee in 1955 and in 1956; Pittack's name was on the lists for 1956 and 1957.

As we go to press, members of the Academy of Television Arts and Sciences are balloting to select the one best photographic achievement among the above-named nominees, as well as the top television achievements for 1957 in categories ranging from Best Actor to Best Variety Show. The presentation ceremonies April 15th will be selected coast to coast.

ACADEMY AWARDS

(Continued from Page 21V)

In addition to the Scientific and Technical Awards already mentioned, a Class I Award was also given to Todd-AO and the Westrex Corp. for developing the Todd-AO system.

H. L. Baumach, Leonard Wargo, H. M. Little and the Unicorn Engineering Corp., Hollywood, were presented a Class II Award for the development of an automatic printer light selector.

A Class III Award was presented Charles E. Sawyer, William B. Smith, Paramount Pictures and General Cable Corp. for the engineering and application to studio use of aluminum light weight electrical cable connectors.

The overwhelming success of "The Bridge on the River Kwai" in the awards—winning in seven categories—recalls that its producer, Sam Spewak, hit the jackpot once before when his "On the Waterfront" garnered eight "Oscars" in 1955.

The Awards show, telecast from coast to coast but minus commercials for the first time, set a new mark for the Academy. It was the smoothest, most star-studded, glamorous-packed show in the Academy's history. The Hollywood film industry really showed TV how to put a show on the air. For the smooth, incomparable job that he did, another "Oscar" should have been presented that night to Jerry Wald of 20th Century-Fox who produced the show for the Academy.

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DISSOLVE-LAPSE

(Continued from Page 227)

plate are four holes—two of which are threaded.

The last remaining part is the telescope sight. Around this fits a yoke-like piece of aluminum with two pins and two holes, which fits on the circular plate just mentioned. The pins fit in the unthreaded holes, and in the threaded ones, two Allen screws are inserted to secure the sight to the circular plate. The long Allen screw mentioned above acts as an axis for the whole assembly. By loosening it, the telescopic sight can be moved up or down.

To the pipe flange at the bottom of the entire register mount is screwed a 1½-inch pipe of any length desired, which becomes the tripod. We decided to use an ordinary pipe flange and a length of ordinary 1½ inch pipe for several reasons. First, both are easily obtained and are relatively inexpensive. Common pipe can be easily worked with available pipe tools. And since both a pipe flange and a length of pipe are fairly common, neither would draw the attention of people who might disturb the register mount through inadvertent curiosity. In practice only the pipe and flange are left behind in the field after removing the camera.

But to better explain how the whole register-mount works, let's see how it would be set up in a typical situation. First, a suitable site for the photographer study is selected. Then the proper height for the camera is decided upon. Where the pipe can be attached to the floor, a suitable flange can be attached to the other end of the pipe and bolted into position. Where the dissolve-lapse filming station is in an open location, such as a field, the pipe should be set in concrete. The machined flange should, of course, be firmly screwed on top, and if the location is a frequented spot the flange should be bolted to the pipe. Before the concrete anchor has hardened, the camera and register-mount assembly should be placed on the pipe flange, and an approximate positioning of camera established. The object here is to get the horizon line level, since the register mount has no adjustment in this direction. The pipe can be moved in the soft concrete at this stage for correction. Afterward the register mount is removed from the pipe flange and the concrete allowed to harden.

Once the pipe is solidly anchored, the register-mount can then be adjusted for picture-taking. Using the hinge adjustment between the upper and lower plates, and the pan movement of the lower circular plate, the shot is lined up except for exact centering. This alignment step is with the aid of the telescope

previously mentioned. By sighting through the telescope, the scope's crosshairs are lined up with a previously established reference mark in the distance, preferably outside the picture area that is taken in by the lens used. This can be a cross painted on a distant tree trunk, roof, structure, etc. Or it can be the corner of a roof or a cornice on a rock or cliff. Whatever the reference mark, it is the key to lining up the camera for subsequent shots.

Should it be discovered, on some subsequent return trip to the filming site, that the pipe camera mount has been tampered with, alignment correction can be re-established with aid of the camera register-mount, adjusting it until the telescope's crosshairs center on the previously established register mark at the site. In wide-angle and normal shots, it is unlikely that any perceptible change will be noticed after the mount has been re-adjusted.

Once a dissolve-lapse take has been completed with the camera mounted as described above, the camera and its accompanying register-mount and scope are removed from the pipe structure. When necessary, the camera may be detached from the register-mount for conventional photography. And since the telescope has a separate register-plate, it, too, may be removed and used elsewhere. Thus, one camera and one telescope can serve many dissolve-lapse filming stations, where more than one is to be employed, with assurance that both can be correctly registered each time at any filming station.

As in most fields of photography, a certain standardized procedure should be followed in making dissolve-lapse shots. Each filming station should be numbered, and its corresponding camera register-mount position should be identified in the same way. This may seem too simple to even mention. However, there have been cases of a mix-up. Sighting each dissolve-lapse scene with either a number, the date, or both, avoids confusion when it comes time to edit and assemble the takes.

It is advisable also to keep notes for reference as to the time of day dissolve-lapse shots are to be made at each filming station or site. Either, it was mentioned that in shooting time-lapse shots out of doors, moving shadows in the screened result are visually distracting. With dissolve-lapse photography, showing the scene at the same time each day virtually eliminates this problem, and whenever a slight shadow differential prevails—as it will where filming is conducted over a long period of time and the seasonal advance of the sun alters both angle of light and the shadows cast, the slight difference is minimized if not obscured by the dissolves.

A point might exist that the shadows in each dissolve-lapse take match exactly. Unfortunately, during a year's time, this is an impossibility. The sun's daily path differs throughout the year, also its path is not as far overhead in winter as in summer. It is conceivable, however, that one could make dissolve-lapse shots over a long period of time having shadows of the same angle. The shadows would be longer, or shorter, but the angle would be the same. This puzzling affair is the situation every sun dial maker finds himself in. And if you discover movement of shadows in your dissolve-lapse shots, perhaps the easiest solution is to send for a chart published in the July, 1946, issue of "The Griffith Observer". Reports are available for fifteen cities from the Griffith Observatory, Los Angeles. This chart plots the daily path of the sun throughout the year both in points of the compass and overhead. Referring to the chart, you can estimate the approximate time to shoot successive time-lapse shots for a minimum of shadow movement. But, in computing a schedule, don't forget Daylight Saving Time.

Utilizing the dissolve-lapse method of cinematography, you can picture the visual effect of the changing seasons on a scene, the construction of a building or other structure, or the growth of a housing project over a long period of time in a greatly compressed visual record that will tell the story without unduly taxing the viewer's time. As with other cinematic tools and techniques the effects and results to be achieved with dissolve-lapse photography are limited only by one's imagination.

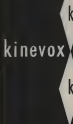
FASTEST COLOR FILM

(Continued from Page 227)

dark, whereas those at the back of the room seem to be better-exposed. This is much more apparent upon projecting the film than these reproductions show here.

Fig. 1 also shows the poor result of only an overhead light source without benefit of some kind of "fill" light. Only the light from the banks of fluorescent in the ceiling could be expected to illuminate the faces. Such is the lot, however, of the cameraman, movie or still, who depends upon available light for his work. But, in these tests, we were more interested in the sensitivity of the emulsion and its true color rendition than of light placement, modeling, and so on.

Fig. 2 was taken in the far corner of the room—also with the 1-inch lens set at f/1.9. Notice how much better exposed it is than Fig. 1, which was taken in the same room with the same light and the same lens at the same opening,



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The only explanation is that in the corner of the room, subjects had the benefit of the cumulative effect of all the lights in the room, whereas in the center of the room scarcely more than half the light falls on subject.

The balance of the illustrations are enlargements from frames made with the 2 inch lens. Fig. 3 shows subjects in the center of the room. The heads of the subjects are well exposed, but the sides of the two men, and especially the projector and recorder, are underexposed. Yet the curtain on the wall in the background shows plenty of light—again, an accumulation of all the light in the room.

Fig. 4, which was the first shot on the roll, was taken at $f/1.9$ with the 24 inch lens and points out the difference in two compositions. Man on the left is a carpenter who works out of doors and retains a rugged tan. Fellow on the right is a film technician and works indoors, much of the time in a darkroom. His lighter complexion contrasts vividly in this enlargement with that of the tanned carpenter.

Fig. 5 was shot from the back of the room, facing the club chairman's table, with the 3 inch lens set at $f/1.6$. This shot appears well exposed. Gradation in the clothing of both men is good, and skin tones of all three are excellent and show none of the bluish cast that



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was expected to result from the focused, central illumination.

Best exposures on the roll in Fig. 6, "Heckler's Bow," which was taken candidly (as were all of the shots) from the far side of the room after the meeting had started. The people were seated next to the back wall and here, again, the cumulative light from all the light sources shows its effect.

The white hair of the gentlemen in the middle is almost overexposed, and certainly the exposure on the faces of the two men on the right is as good as anyone could ask. In this shot, with the light coming from an angle more than in any of the other shots, there is some semblance of modeling, and the exposure can be said to be most satisfactory. The skin tones in this shot are especially good.

At the end of the roll I made a couple of test shots using No. 2 photoflood exposure, only to see if the coloration would be any different—perhaps truer. There was no difference.

From these tests it was concluded that this new super-speed color film is, indeed, fairly rated at 100 ASA, and that for good results the subject should be fully and evenly lighted. Secondly, although designed for use at 3200 K., a difference of 400 degrees in color temperature, or up to 3600 K., will not produce noticeable adverse results.

Thirdly, the film has tremendous latitude, and even when underexposed one full stop, the results are still usable and the color acceptable. Since none of my tests were over-exposed, I cannot draw any conclusions as to how far one can over-expose and still get acceptable results.

Grain is present, but grain is present in any fast emulsion. It is noticeable in long shots, such as Fig. 1, but is greatly minimized, or rather, is less noticeable in very close ones such as Fig. 6.

Obviously this film greatly enlarges the scope of indoor color photography. Taking candid color movies indoors using only available light is almost a field within itself.

Shooting with customary indoor illumination, almost three stops less exposure can be given than when other indoor type color film is used. It means considerable additional latitude for those scenes which hitherto were just a bit too large to photograph successfully. Slower lenses can now be used (which means the f/4.5 telephoto will now find their place in indoor photography) and, of course, a greater depth of field and more acceptable focus are assured.

One of the great uses of the new film will be for photographing graphs and charts in color on automatic clocking devices and other machinery, shots which hitherto have either been out of

the question or obtainable only in black-and-white. It will make possible slow-motion photography indoors, and high-speed motion analysis. Indoor sports shots in color will be feasible in places where it previously was not possible. In industry the film is sure to find its way into data recording, stress studies, time-lapse work under existing light, medical movies, and in other scientific applications.

Special processing can increase the speed up to as high as 300 ASA. This is accomplished in development by prolonging the time the film remains in the first developer. Color balance remains surprisingly good when development is forced, although there is no substitute for proper processing. Only when pictures must be made under adverse light should an attempt at forcing be made. But it is nice to know this extra advantage is available.

Where Super Anscochrome, tungsten type, is to be shot outdoors, an 85B correction filter should be used. The exposure index becomes 80 ASA.

As with all Anscochrome films, cost of processing is not included in the purchase price. Many laboratories will process Super Anscochrome, or it can be done by the photographer himself in any well equipped darkroom. The solutions are available in prepared form.

Now that Ansco has made available high-speed color films for both daylight and Tungsten use, the color photographer can do just about everything the black-and-white photographer can do with high-speed B&W films. Making color movies of weddings, parties, conventions of any kind or indoor event under existing light is now a simple procedure with any 16mm camera and a reasonably fast lens.

MOVIES OF "UFO's"

(Continued from Page 213)

'stern-lines.' I am not certain whether these lines may have been a kind of exhaust funnel . . . I assume . . . that as the objects were about 15-20 miles away, the speed (and the size) must have been far beyond anything achieved by man-made aeroplanes. I am basing this assumption on the fact that the objects were out in the sun while we were still in the shadow of the eclipse. The shadow extended at least 15 miles north of our position."

The profiles of the airplanes carrying the observers had been removed, eliminating the possibility of reflections, though some had suggested this explanation.

Two photo-theodolite specialists at the top secret test center at Edwards Air Force Base, California, observed and

filmed a second, bright and slow moving object at dawn on May 3, 1957.

Air Force later admitted the "objects" in the photographs, even after magnification, were found to be small white specks, chaotically changing from elliptical to round in shape. Nevertheless, it claims the object was resolved to have been a weather balloon. The Defense Department declined to release the film.

George Adamski of Valley Center, California, claims to have taken 150 feet of 16mm Daylight Kodachrome film of UFO's between Sept. 1956 and January 1958. (See accompanying illustration.) Numerous reference points are included in many scenes. The objects are seen to be often eclipsed by trees and power lines, and the hand held "camera jump" appears synchronous with the objects' motion, thereby making simulation somewhat unlikely. Adamski used a Keystone A-6 camera with a 3-inch telephoto lens. These films have yet to be analyzed.

And on December 1, 1957, Ralph E. Bean of Los Angeles reportedly shot about 10 feet of Type A Kodachrome (using a conversion filter) of six UFO's with a Keystone Capri 8mm movie camera. (Speed was set at 16 fps, and 1½-inch-telephoto lens was opened wide to f/3.5, as Bean says that portion of the sky was extremely dark.) He reports several witnesses and states the objects were clearly visible though much smaller than the moon.

Bean turned the unprocessed film over to the Patented Research, USAF, Hollywood. The film was processed and sent to the AFIC for analysis. Bean says he has been personally commended by Colonel Dean Hess, USAF, for the thoroughness of his report and the quality of the film. Unfortunately, only four objects were visible in the film.

The written have carefully studied as many of the above films as possible from the critical standpoint of quality and usefulness. Having established that good motion pictures of unidentified aerial phenomena can be extremely valuable in resolving the enigma, we undertook a rather extensive survey of equipment and technique in this field, which will be described in our concluding article next month.

MOVING?

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- **LARRY ARMSTRONG, ASC, "Silver Service"** (Columbia National Prods.) Jean YVES, director.
- **ROBERT BRIDGES, ASC, "Party Girl"** with Robert Taylor and Cpl. Charlene Nichols. Ray, director.
- **WILLIAM BARRETT, ASC, "Cat on a Hot Tin Roof"** (Aven Prods.) with Elizabeth Taylor, Paul Newman and Earl Ivy. Richard Brooks, director.
- **GYRONE FOLMER, ASC, "Initiation Course"** with Glenn Ford and Burt Reynolds. George Marshall, director.
- **HAROLD MARMONTE, ASC, "High School Confidential"** with Ian Stirling and John Drew Barrymore. Jack Arnold, director.
- **NICK NEMENKA, ASC, "Infamy at Sea"** (Virginia & Andrew L. Stone Prods.) with James Mason, Frederick Crawford and John G. Avard. Andrew L. Stone, producer-director.

- **JOSEPH RUTENBERG, ASC**, "The Lebanese Debators" (Aveo Productions) with Ken Hammond and Kay Kendall, Viscare Maffei, director
- **JOHN STONE, ASC**, "The Badlanders" with Alan Ladd and Kay Jurado, Delmar Davis, director
- **LESTER STONE, ASC**, "Uana Pacific" (Cold National Productions) with J-E Morrow, Joseph Kane, director; "Newspaper" (Film) George Cohen, director

- **HARRISON SMITH**, "Northwest Passage" with Keith Larson Allen Crandall, director.
- **WILLIAM SOYDER, ASC**, "Tanner's Fight for Life" (GammaScope & Color, Sol Lesser Prod.) with Gordon Scott and Eve River Bruce Handwerker, director.

- **WILLIAM SWEENEY, JR.**, "The Thin Man" with Peter Lorrey and Phyllis Kirk. Various directors.

ACTION PICTURE CENTER

- CHARLES BAKER, "The Red McCall" (Bryan-Wingate Prods.) By Aschbach, director.
- HENRY CROWDER, "Whirlbirds" (Decca Prods.) with Kenneth Tobey and Craig Hill Various directors.
- ROBERT H. GRANGE, ASC, "The Danny Thomas Show" (Lewin Prods.) with Danny Thomas. Sheldon Leonard, director.
- SAM HICKSON, ASC, "December Bride" (Decca Prods.) with Spring Byington and Jeanne Roderick. Fred McDonnell, director. "Red Skelton Show" (Decca Prods.) with Red Skelton. Seymour Chaskin, director.

- ★ *Norm Macdonald, ASC* "The Marie Wilson Show" (Films, Devlin Prods.) Sidney Seligson, Director

- **Joe Novak, ASC, "Men McGrew"** (Decca Productions) with Frank Lovejoy. Various directors; "The Texas" (Pilot, Decca Productions) Jerry Thorne, director.

- * CHARLES SCHWABER, "Adventures of Jim Beest," (Jim Beest Ltd.) with Scott Forbes, George Archibald and Anne Leides, Bremen.

PARAMOUNT

- ROBERT BUCKS, ASC, "The Black Orchid" (Vista/Vision; Ford/Globe Prod.) with Sophia Loren and Anthony Quinn. MARTIN RIT, director.
- RUSSELL HARLAN, ASC, "King Creole" with Elvis Presley and Carolyn Jones. Michael Cur- tie, director.
- CHARLES LANE, ASC, "Showdown at Gun Hill" (Vista/Vision) with Kirk Douglas and Anthony Quinn. John Sturges, director.

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- JACK MCKENZIE, ASC, "State Trooper" * (Retro Prods.) with Ned Cameron. Various elements.

PATHS STUDIED IN F

- Don MALKAM, ASC, "Rindweem" with Kim HANDEL, KENNETH Wynn, Gary Merrill John Newland, director

REPLYING TO STUDENT

- **EDWARD COLEMAN, ASC, "Dugan,"** 4 (Mark VII Productions) with Jack Webb and Ben Alexander, Jack Webb, director.
- **ANCH DALLIE, Standard Oil Commercial[®].** Spencer Barnett, director.

- ELLSWORTH FREDRICKS, ASC, "Napoleon" (Revue Productions) Louis Milosavljevic, director; "Sedlak Playhouse" (Revue Productions), John Pomeroy, director.

- **BRANDON KIM, ASC**, "Wagon Train"
(Genre: Pred.). Various directors.

- **LOONEY, LANSBORN, ASC**, "General Electric Theatre" (Revue Prods.). John Lansborn, director; "Alfred Hitchcock Presents" (Revue Prods.). Arthur Hiller, director.

- RAY HENNARIN, ASC, "M. Squad" (Harrison Productions) with Lee Marvin. Dan Taylor, director; "General Electric Theatre" (Harrison Productions). Various directors; "Suspense" (Harrison Productions). John Bruckey, director.

- **JOHN REMICK, ASC**, "Jane Wyman Theatre" (Lewman Prods.) with Jane Wyman. Various directors; "Special Agent Seven" (Kear Prods.), James Nathan, director; "Affair Without Precedent" (Kear Prods.), Alfred Hitchcock, director; "General Electric Theatre" (Kear Prods.), Harold Daugherty, director.

- **WILLIAM SCHWARTZ, ASC**, "Lions in the Desert" (Gunnison Prods.) with Barbara Billingsley and Hugh Brannum, Norman Tokan, director; "Bachelor Father" (Bachelor Prods.) with John Fawcett. Various directors. "Special Agent Seven" (Kerne Prods.). James Ashby, director.

(Continued on Page 354)

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Note:

The commercial and television producers in the listings in these columns are not rated by *enr*.

REPUBLIC

- MARK STENGEL, ASC, "The Millionaire" (Don Feddema Prods.). John Pomeroy, director; "Texas Studies 57" (Beverly Prods.), John Bickler, director; "Special Agent Seven" (Beverly Prods.), John Bickler, director; "M Squad" (Lawrence Prods.) with Lee Marvin. Allen Miner, director.
- ELLIOTT TRACY, ASC, "Rearview Case" (Window-Glass Prods.) with John Pomeroy, director; "The Wild Page" (Overland Prods.) with Dale Robertson. Various directors.
- JOHN WARREN, ASC, "Soldier Phosphate" (Beverly Prods.), Don Wein, director; "Alfred Hitchcock Presents" (Various directors), "The Millionaire" (Don Feddema Prods.), Al Green, director.

RKO

- EDWIN DUBIN, ASC, "From the Earth to the Moon" (Technicolor, Republic Prods., shooting in Mexico City) with Joseph Gatto, Byron Haskin, director.

REG-PATHÉ

- GEORGE ENGERT, ASC, "Alone Goodyear Theatre" (Four Star Prods.) Various directors; "Mr. Adams & Eve" (Bridges Prods.), with Ida Lupino and Howard Duff. Richard Kirsch, director.
- WILLIAM MARSHALL, "Richard Diamond Private Detective" (Four Star Prods.) with David Jackson, Ralph Martin, director; "Johnny Carson Show" (Four Star Prods.) with Johnny Carson. Leslie Goodson, director.
- JOE NOLAN, ASC, "Richard Diamond Private Detective" (Four Star Prods.) with David Jackson. John Kirk, director.
- GUY ROG, ASC, "Trackdown" (Four Star Prods.) with Robert Culp. Don McDougall, director; "Dick Powell's Love Story Theatre" (Four Star Prods.) with Dick Powell. Various directors.

HAL ROACH STUDIOS

- RAY FENNINGHAM, ASC, "Nevada Coffee commercial" Jack Reynolds, director.
- EDWARD FENNINGHAM, ASC, "The Gale Storm Show" with Gale Storm. Norman McLeod, director.
- PAUL DRAGO, "Telephone Time" with John Nash. Various directors.

- LUTHER WEAVER, ASC, "Low Time M" with Lou Jeffers and Robert Sterling. William Suter, director.

20TH CENTURY-FOX

- BRUCE BAUER, "Muscle Into Space" (Regal Prods.) with Bill Williams and Lyn Thomas. Edwards Berns, director.
- CHARLES CLARK, ASC, "The Hardins" (De Luxe color; CinemaScope) with Robert Mitchum and Mary Firth. Richard Powell, director.
- TOM TUTTLE, ASC, "The Hardins" (De Luxe).
- HERMAN KRAMER, ASC, "A Certain Smile" (CinemaScope & Color) with Rosanna Hare and Christian Carey. John Neumann, director.
- WILLIAM MILLER, ASC, "The Dirty of Anne Frank" (CinemaScope) with Milla Perlman and Joseph Schildkraut. George Stevens, producer-director.
- LARRY SHANNON, ASC, "The Bravado" (CinemaScope & Color) with Rosanna Hare and Christian Carey. John Neumann, director.
- EARL STREIB, ASC, "The Fly" (CinemaScope & Color) with Al Hoffman and Patricia Owens. Earl Neumann, director.

UNIVERSAL-INTERNATIONAL

- ARTHUR ARLINE, ASC, "Foggy City commercial" Jack Daniels, director; "DeSoto commercial" Wil Gross, director.
- JERRY GLASSMAN, ASC, "Saddle Young" (NBC Film) James Nathan, director.
- RUSSELL WYATT, ASC, "Playhouse 90" David Smith, director.

WARNER BROS.

- JOSEPH BACCI, ASC, "Home Before Dark" with Jean Simmons and Dan O'Herlihy. Marylyn LeMay, director.
- ARTHUR FRIDEL, ASC, "Kismet commercial" Dave Mosher, director.
- PERRY FENNINGHAM, "Cherries" with Clint Walker. Leslie Morrison, director.
- FRANK FLANIGAN, ASC, "The Nuts Story" (WarnerColor, Fred Zinnemann Prods.) showing in Athens) with Audrey Hepburn and Peter Finch. Fred Zinnemann, director.
- HAROLD STONE, ASC, "Superfreak" with Will Hutchins. Various directors.
- RALPH WOOLSON, ASC, "Married" with Jim Garry. Douglas Heyes, director; "Cherries" with Clint Walker. Leslie Morrison, director.

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